

# National Polar-Orbiting Operational Environmental Satellite System (NPOESS)

## EMD/Production Draft RFP RED TEAM 6 NOV 2001

- (a) Executive Summary
- (b) Sec. B (CLINs), partial
- (c) Sec. F (Deliveries and Performance), partial
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- (e) Sec. L & M (combined) (Instructions to Offerors and Evaluation Criteria), partial
- (f) L&M Annex A (WBS)
- (g) L&M Annex B (Past Performance Questionnaire)
- (h) Exhibit A (CDRL), partial
- (i) NPOESS EMD/Production Statement of Objectives
- (j) Award Fee and Mission Success Fee Plan

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## Program Overview

The National Polar-orbiting Operational Environmental Satellite System (NPOESS) program integrates the capabilities and products provided by the Department of Commerce (DOC) Polar-orbiting Operational Environmental Satellite (POES) Program, Department of Defense (DoD) Defense Meteorological Satellite Program (DMSP), and the NASA long-term continuous climate record collection. This single converged system will satisfy the needs of defense, civil, commercial and scientific communities. The NPOESS mission is to provide timely and accurate data to numerous users for various operational, environmental and scientific applications.

A tri-agency Integrated Program Office (IPO) manages the NPOESS program. The IPO is concluding Program Definition and Risk Reduction (PDRR) activities initiated in 1997 that focused on developing system architectures and reducing risks, and is preparing to enter the Engineering and Manufacturing Development (EMD) and Production phase. The IPO plans to select a single systems contractor with Total Systems Performance Responsibility (TSPR) to accomplish the EMD and production programs. During EMD, the TSPR contractor will: manage completion of NPOESS sensor development; provide two satellite sensors and integration support to the joint IPO/NASA mission, the NPOESS Preparatory Project (NPP); develop, deliver and support the Command, Control and Communication (C3) and Interface Data Processing (IDP) segments; develop, integrate, and deploy the NPOESS space segment; integrate the NPOESS space segment with the launch support segment; develop and deploy the NPOESS support system; develop, deploy and support the software portion of the NPOESS field terminals; conduct a progressive integration, test and acceptance program; and support the NPOESS system through Initial Operational Capability (IOC), including on-going calibration and validation activities. During production, the TSPR contractor will integrate and deploy additional satellites.

The TSPR contract will be awarded in the third quarter of CY 2002. System support following IOC will be procured through a separate contractual action. The funding profile shown in the figure reflects target funding available to fund the TSPR contract in each Government Fiscal Year.

### Cumulative Funding Profile

	TY\$M	FY02	FY03	FY04	F05	FY06	FY07	FY08	FY09
Threshold		68	446	942	1413	1930	2504	2885	3238
Objective		60	415	884	1331	1822	2368	2732	3070

Excludes: Government Program Office  
Standard Launch Services 75 75 75

**Figure EX-1 Contract Funding Profile**

## **Program Issues, Challenges and Risks**

The results of the NPOESS PDRR phase and the NPOESS program acquisition strategy frame the IPO approach to selecting the TSPR contractor for EMD and production. The stringent technical requirements associated with meeting the needs of DoD, DOC, NASA, and the commercial and scientific communities, mandate selection of a single system with excellent design performance delivered through a rigorous and thorough design approach. Some of the most challenging requirements include the ability to accomplish parallel sensor and system development, manage complex system integration, and achieve an aggressive schedule for delivering sensors, C3 and IDP segments in support of NPP. The selection of a TSPR contractor with a demonstrated TSPR track record and proven system engineering, system integration, and risk management is a high priority.

Performing NPOESS development and production using the TSPR approach presents unique challenges. Although the TSPR contractor will have the authority to manage system configuration to achieve system level performance, the Government has identified specific sources for a number of Space Segment sensors. Additionally, while system level performance is specified in terms such as precision and accuracy of specific Environmental Data Records (EDRs), the specific needs of specific NPOESS customers force the Government to maintain significant insight into development of Raw Data Records (RDRs) generated by the instruments and the subsequent processing of those RDRs to generate EDRs .

## **Source Selection Philosophy**

The overarching objective of the NPOESS EMD and Production source selection process is to conduct a source selection focused on evaluating each offeror's ability to successfully address key NPOESS program systems engineering, integration, and risk reduction activities. Achieving this objective requires that the Government obtain a complete and thorough understanding of each competitor's offer, and that industry understands the Government's information requirements, how this information will be evaluated, and what it takes to win. The Government will minimize the effort required to respond to this Request For Proposal (RFP) by: limiting the size of proposal documents; making maximum use of data developed and delivered during the PDRR phase; using the PDRR Preliminary Design Review and the fourth Ground Demonstration and making these part of source selection; and, by creating a source selection environment focused on communication.

## **Evaluation Criteria**

Evaluation criteria for this competition flow directly from the key NPOESS issues, challenges and risks. A balanced and integrated evaluation will be conducted of each offeror's proposal. The evaluation will consider four factors; Mission Capability, Proposal Risk, Past Performance and Cost. Mission Capability, Proposal Risk and Past Performance are weighted equally, each greater than cost, reflecting the program's interest in balancing performance and risk and in selecting a contractor with proven TSPR capability, capable of delivering a program of this magnitude on schedule and on

cost. Within Mission Capability, four subfactors will be evaluated; (i) System Performance, (ii) Segment Design, (iii) Systems Engineering Integration & Test and Planning, and (iv) Management and Organization, all equally weighted. This evaluation structure is intended to identify and select a winning TSPR contractor with the following characteristics: proven capability to organize and direct the industrial team and to accept and execute TSPR; a program management organization with proven, team-wide management and control processes and tools; a pervasive, disciplined system engineering process focused on driving down risk and cost and managing complex system integration; detailed, integrated, risk-managed program plans and integrated management framework; and a design that delivers required performance.

### **Incentivization**

The NPOESS EMD and Production program offers industry the opportunity to realize commercial rates of return. The EMD contract will be a cost reimbursable type contract. It will provide a base fee to ensure adequate cash flow for successful program execution, an award fee that provides substantial returns for successful technical, schedule and cost management, and mission success fees awardable on achievement of significant program events and on-orbit performance. The production line items will be fixed price incentive (FPI) options. During production, cost control is incentivized through a 50/50 share line; successful technical and schedule management is recognized through an award fee; and system reliability and durability rewarded through on orbit incentives.

### **Shared Ownership**

The NPOESS program provides an opportunity to re-define how Government and industry cooperate to procure and deliver goods and services. The IPO has created the concept of shared ownership, a relationship between Government and industry where risk and returns are shared. This management approach depends upon highly integrated management teams to ensure adequate Government insight and oversight while maintaining TSPR by industry. Shared ownership offers the potential to harness the efficiency of commercial practices to significantly reduce the cost of major system acquisitions. Active industrial participation in every phase of developing the RFP and the framework of the source selection will contribute significantly to developing the shared ownership environment.

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NPOESS EMD/PRODUCTION DRAFT RFP  
SECTION B

ITEM	SUPPLIES OR SERVICES	Qty Purch Unit	Unit Price Total Item Amount
<b>0100</b>	<p><i>Noun:</i> NPOESS ENGINEERING AND MANUFACTURING DEVELOPMENT (EMD)</p> <p><i>ACRN:</i> 9</p> <p><i>Security:</i> U</p> <p><i>NSN:</i> N - Not Applicable</p> <p><i>Contract type:</i> R - COST PLUS AWARD FEE</p> <p><i>Inspection:</i> DESTINATION</p> <p><i>Acceptance:</i> DESTINATION</p> <p><i>FOB:</i> DESTINATION</p> <p><i>Descriptive Data:</i></p> <p>Estimated Cost \$ _____</p> <p>Award Fee Pool \$ _____</p> <p>Mission Success Fee Pool \$ _____</p> <p>Base Fee \$ _____</p> <p>CLIN Price \$ _____</p> <p>All Research, Development, Test, and Evaluation (RDT&amp;E) for design, fielding, and testing of the NPOESS system, including CrIS and VIIRS sensors to NPP, the complete NPOESS space segment (C1 and C2), NPOESS &amp; NPP IDP and C3 segments, launch support segment (including calibration and validation, integration to the EELV, and on-orbit checkout), and field terminal segment, resulting in declaration of Initial Operational Capability (IOC) and final delivery of all ground segment elements to support production satellites.</p>	1 LO	
<b>010001</b>	<i>Noun:</i> FY20__ DOD FUNDS		
<b>010002</b>	<i>Noun:</i> FY20__ DOC FUNDS		
<b>010003</b>	<i>Noun:</i> FY20__ DOD FUNDS		
<b>010004</b>	<i>Noun:</i> FY20__ DOC FUNDS		

ITEM	SUPPLIES OR SERVICES	Qty Purch Unit	Unit Price Total Item Amount
<b>0200</b>		1 LO	
	<i>Noun:</i>	INTERIM CONTRACTOR SUPPORT	
	<i>ACRN:</i>	9	
	<i>Security:</i>	U	
	<i>NSN:</i>	N - Not Applicable	
	<i>Contract type:</i>	R - COST PLUS AWARD FEE	
	<i>Inspection:</i>	DESTINATION	
	<i>Acceptance:</i>	DESTINATION	
	<i>FOB:</i>	DESTINATION	
	<i>Descriptive Data:</i>		
	Interim Contractor Support from NPP Ground Readiness through declaration of IOC. Operating and maintaining C3 sites and systems, IDP sites and systems, processing data, maintaining and updating algorithms, maintaining the field terminal software, and operating and maintaining NPP and NPOESS satellites.		
<b>020001</b>			
	<i>Noun:</i>	FY20__ DOD FUNDING	
<b>020002</b>			
	<i>Noun:</i>	FY20__ DOC FUNDING	
<b>020003</b>			
	<i>Noun:</i>	FY20__ DOD FUNDING	
<b>020004</b>			
	<i>Noun:</i>	FY20__ DOC FUNDING	

ITEM	SUPPLIES OR SERVICES	Qty Purch Unit	Unit Price Total Item Amount
<b>1300</b>	OPTION CLIN		
	<i>Noun:</i>	REPLENISHMENT SATELLITE (C3)	
	<i>Security:</i>	U	
	<i>NSN:</i>	N - Not Applicable	
	<i>Contract type:</i>	_ - FIXED PRICE INCENTIVE (FIRM)	
	<i>Descriptive Data:</i>	Production of the C3 satellite, including IA&T.	
<b>1310</b>	OPTION CLIN		
	<i>Noun:</i>	C3 STORAGE AND LAUNCH SUPPORT	
	<i>Security:</i>	U	
	<i>NSN:</i>	N - Not Applicable	
	<i>Contract type:</i>	_ - FIXED PRICE INCENTIVE (FIRM)	
	<i>Descriptive Data:</i>	Storing and maintaining the C3 replenishment satellite until launch, and launch support including on-orbit check-out.	
<b>1400</b>	OPTION CLIN		
	<i>Noun:</i>	REPLENISHMENT SATELLITE (C4)	
	<i>Security:</i>	U	
	<i>NSN:</i>	N - Not Applicable	
	<i>Contract type:</i>	_ - FIXED PRICE INCENTIVE (FIRM)	
	<i>Descriptive Data:</i>	Production of the C4 satellite, including IA&T.	
<b>1410</b>	OPTION CLIN		
	<i>Noun:</i>	C4 STORAGE AND LAUNCH SUPPORT	
	<i>Security:</i>	U	
	<i>NSN:</i>	N - Not Applicable	
	<i>Contract type:</i>	_ - FIXED PRICE INCENTIVE (FIRM)	
	<i>Descriptive Data:</i>	Storing and maintaining the C4 replenishment satellite until launch, and launch support including on-orbit check-out.	
<b>1500</b>	OPTION CLIN		
	<i>Noun:</i>	REPLENISHMENT SATELLITE (C5)	
	<i>Security:</i>	U	
	<i>NSN:</i>	N - Not Applicable	
	<i>Contract type:</i>	_ - FIXED PRICE INCENTIVE (FIRM)	
	<i>Descriptive Data:</i>	Production of the C5 satellite, including IA&T.	

**1510**      OPTION CLIN

*Noun:*                      C5 STORAGE AND LAUNCH SUPPORT  
*Security:*                U  
*NSN:*                    N - Not Applicable  
*Contract type:*        \_ - FIXED PRICE INCENTIVE (FIRM)  
*Descriptive Data:*  
Storing and maintaining the C5 replenishment satellite until launch, and launch support including on-orbit check-out.

**1600**      OPTION CLIN

*Noun:*                      REPLENISHMENT SATELLITE (C6)  
*Security:*                U  
*NSN:*                    N - Not Applicable  
*Contract type:*        \_ - FIXED PRICE INCENTIVE (FIRM)  
*Descriptive Data:*  
Production of the C6 satellite, including IA&T.

**1610**      OPTION CLIN

*Noun:*                      C6 STORAGE AND LAUNCH SUPPORT  
*Security:*                U  
*NSN:*                    N - Not Applicable  
*Contract type:*        \_ - FIXED PRICE INCENTIVE (FIRM)  
*Descriptive Data:*  
Storing and maintaining the C6 replenishment satellite until launch, and launch support including on-orbit check-out.

ITEM	SUPPLIES OR SERVICES	Qty Purch Unit	Unit Price Total Item Amount
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**2100** OPTION CLIN

*Noun:* OPERATORS MANUALS, TRAINING MATERIALS (COST-PLUS-AWARD-FEE)  
*Security:* U  
*NSN:* N - Not Applicable  
*Contract type:* R - COST PLUS AWARD FEE  
*Descriptive Data:*

Develop a Transition Plan and upgrade Operator Manuals, Training Manuals, Failure Data, and other materials as necessary to transition from Interim Contractor Support (ICS) to Government operations or for competitive use. Option may be exercised on or before 1 Feb 2008 with delivery at 1 Feb 2010 with updates as necessary through declaration of IOC.

**3100** OPTION CLIN

*Noun:* SPECIAL STUDIES  
*Security:* U  
*NSN:* N - Not Applicable  
*Contract type:* J - FIRM FIXED PRICE  
*Descriptive Data:*

Special Studies which are FFP will be recorded as lettered subCLINs under this CLIN.

**3200** OPTION CLIN

*Noun:* SPECIAL STUDIES  
*Security:* U  
*NSN:* N - Not Applicable  
*Contract type:* \_ - (COST-PLUS-FIXED-FEE)  
*Descriptive Data:*

Special Studies which are CPFF will be recorded as lettered subCLINs under this CLIN.

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**F-504 REQUIRED PERFORMANCE**

(a) The notional launch date for NPP is December 2005. The Government reserves the right to change the launch date to an earlier date, and if it does so, will provide one year's notification to the contractor. The contractor shall accomplish the events listed below based on the NPP launch date:

L - 6 months	NPP C3S Operational Readiness
L - 6 Months	NPP IDPS Operational Readiness for RDR delivery to two Centrals
L - 2 Months	NPP IDPS Operational Readiness at two Centrals
L + 90 Days	Contractor assumes Total System Performance Responsibility (TSPR) for NPP
L + 180 Days	Contractor delivers early prototype NPP EDR software for use in HRD terminals

(b) The notional launch date for POES N' is March 2008. The Government reserves the right to change the launch date to an earlier date, and if it does, will provide one year's notification to the contractor. The contractor shall accomplish the events listed below based on the N' launch date:

March 2008	IDPS & C3S functionality will be available to support a 1330 orbit at all Centrals and two MMCs
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(c) The notional launch date for DMSP F-20 is February 2009. The Government reserves the right to change the launch date to an earlier date, and if it does, will provide one year's notification to the contractor. The contractor shall accomplish the events listed below based on the F-20 launch date:

February 2009	IDPS & C3S Functionality will be available to support all orbits at all Centrals and two MMCs
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## B. OTHER CONTRACT CLAUSES IN FULL TEXT

### **H-500 TOTAL SYSTEM PERFORMANCE RESPONSIBILITY**

(a) Definitions. The NPOESS is comprised of the Space Segment, Launch Support Segment, Command, Control and Communications Segment (C3S), Interface Data Processing Segment and the Field Terminal Segment. The NPOESS segments are defined in the Technical Requirements Document. The Space Segment includes design, manufacture, and delivery of CrIS and VIIRS sensors to NPP (and support of sensor integration onto the NPP spacecraft and on-orbit checkout).

(b) Performance Responsibility. The NPOESS Contractor shall have Total System Performance Responsibility (TSPR) for the entire National Polar-orbiting Operational Environmental Satellite System as defined above. TSPR is the responsibility for ensuring that the overall performance of NPOESS meets all requirements defined in the Contract Schedule, the NPOESS Technical Requirements Document, L&M 520 (NPOESS System Prioritizations), and the Integrated Master Plan. TSPR includes integration of all segments, systems, subsystems, and components whether furnished by the Government, identified and directed by the Government, managed by the Government or its designated agent, or commercially acquired. Additionally, the NPOESS contractor is responsible for ensuring that the NPOESS is optimized for post-EMD production, deployment and support. Integration responsibility shall include the monitoring of all associate contractor and Government systems and infrastructure activities. Monitoring shall include the timely notification and recommendation of mitigation efforts to the Government for risks resulting from schedule, technical, or resource conflicts with these systems and infrastructure activities to ensure the Contract Schedule, NPOESS System Specification, and Integrated Master Plan requirements are met.

(c) Equitable Adjustments. Failure of any systems or infrastructure requiring interface with the NPOESS to meet stated capabilities does not relieve the contractor of TSPR, as the contractor shall avoid or mitigate any impacts to the NPOESS to the maximum extent practicable. However, the parties agree that equitable adjustments will be made to the cost, schedule, NPOESS contract system specification, award fee criteria and other affected terms and conditions of the NPOESS contract for NPOESS impacts resulting from changes to any systems or infrastructures requiring interface with NPOESS capabilities. All equitable adjustments to the NPOESS contract for the above changes shall be processed pursuant to the procedures of the "Changes" clause of the NPOESS contract. For Government-furnished items, the provisions of FAR 52.245-5, "Government Property" shall apply.

(d) The EMD contractor will have Total System Performance Responsibility for NPOESS Preparatory Project system starting after early on-orbit checkout (anticipated at Launch plus 90 days).

### **H-503 SHARED OWNERSHIP**

(a) The IPO has created the concept of shared ownership, a relationship between Government and industry where risk and returns are shared. This management approach depends upon highly integrated management teams to ensure adequate Government insight and oversight while maintaining TSPR by industry.

(b) The foundation of the IPO's NPOESS acquisition strategy is based on three guiding principles: a solid understanding of program business risks, awareness of industrial base concerns, and shared ownership. Even with award of the NPOESS contract, these three principles will continue to exist and shall be encompassed by the concept of shared ownership. Shared ownership is defined as the integrated management framework between the IPO and TSPR contractor that provides the foundation for program performance consistent with these principles and the requirements of this contract. The IPO and the TSPR contractor will work together to ensure an environment of teamwork, trust and open communications to facilitate insight into each other's decisions. Program decisions that impact the team's ability to execute the program, as contemplated by this contract, will be made jointly.

(c) Contractor performance will be evaluated against the obligations set forth in this contract including modifications to this contract. Award fee or incentive fee evaluations will be made in accordance with the provisions of the contract. The IPO will conduct evaluations that reflect the effect of the Government's actions on the performance of the integrated management team.

(d) To facilitate the existence of the shared ownership concept through the life of this contract, the IPO and contractor will engage in a quarterly dialogue. The purpose of this dialogue is to maintain executive focus on program performance and evaluate the IPO/Contractor team's effectiveness in achieving the desired program results. At the close of each GFY quarter, the IPO and contractor Program Directors shall jointly prepare an agenda for executive dialogue to be conducted by their respective executives.

#### **H-507 IPT RELATIONSHIPS**

(a) The contractor shall invite the IPO to assign Government officials (or supporting FFRDC employees) on the contractor's Integrated Product Teams (IPTs). The IPO may or may not make such assignments.

(b) Where these assignments are made, they are for the purpose of providing visibility into the contractor's performance and progress and insight to the contractor from the Government. Government officials (or supporting FFRDC employees) do not chair IPTs, and the presence and participation of Government officials on an IPT does not indicate Government acceptance or concurrence on any matter presented to the IPT. Government participation does not in any way relieve the contractor of responsibility for total system performance under this contract.

(c) The Contracting Officer shall be the only individual authorized to redirect the effort or in any way modify any terms of this contract. The contractor shall not rely on any direction or instruction from any other Government team member that is contrary to the contract or that increases or decreases the scope or estimated cost of the contract. Insight and information provided to the contractor by other members of the Government team is provided for the contractor's benefit and use as it sees fit to accomplish its total system performance responsibilities under this contract.

#### **H-509 CHANGES TO CERTAIN SENSOR PERFORMANCE PARAMETERS**

(a) The Government has specific interests in certain sensor performance parameters that define instrument performance, below the EDR performance level, that are important to some data users for diverse purposes, such as direct assimilation of raw radiances into numerical models.

In particular, the Government is interested in any change to the components in the end-to-end signal flow path which could affect the quality of the sensor output raw data stream. Consistent with the principle of shared ownership, the contractor shall provide notification of any such proposed changes, with supporting rationale, by written notice to the NPOESS IPO Chief Systems Engineer and with direct reference to this clause, in sufficient time to meaningfully support the Government's participation in the discussion of the change and as soon as practicable after the need for the change surfaces. The Government's participation in these discussions is at its discretion, and may involve participation from the Government's technical, scientific, user, and contractor support communities.

(b) Examples of the parameters of interest to the Government are Instrument Type, Spectral or Frequency Band Characteristics, IFOV / IFOR Parameters, NEdT, NEN, SNR, Measurement Accuracy & Error Sources, Scan and Sampling Parameters, Band to Band or Channel to Channel Co-Registration, Optical System Design Parameters/Constraints, Focal Plane Architecture and Detector Characteristics, Radiant Cooler Performance Characteristics, Antenna Characteristics, Modulation Transfer Function, Calibration Concepts - Pre-Flight & On-Orbit, and Data Acquisition Parameters & Data Stream Content.

(c) In addition to the performance parameters listed above, the Government requires prior notification of any proposed change to the VIIRS or CrIS design that could affect the interface of the VIIRS and CrIS instruments to the NPP spacecraft. The Government reserves the right to participate in the decision process between the NPOESS and NPP spacecraft contractors.

#### H-515 BASE FEE

(a) The EMD portion of this contract includes a base fee. The contractor may invoice monthly for an amount equal to one-twelfth of that fiscal year's base fee amount. Fiscal year is the Government's fiscal year (October through September).

YEAR	ANNUAL AMOUNT	MONTHLY AMOUNT	
FY03	\$_____	\$_____	
FY04	\$_____	\$_____	
FY05	\$_____	\$_____	
FY06	\$_____	\$_____	(OFFEROR INPUTS FIGURES BASED ON 2% OF THE EMD ESTIMATED COST (CLINs 0100 AND 0200) PER YEAR
FY07	\$_____	\$_____	
FY08	\$_____	\$_____	
FY09	\$_____	\$_____	
FY10	\$_____	\$_____	
FY11	\$_____	\$_____	
TOTAL	\$_____		

(b) On the first day of September and March of each year, the contractor will provide the contracting officer with a summary recapitulation of all base fee invoicings it has made to date from time of contract award.

**H-518 AWARD FEE AND MISSION SUCCESS FEE**

An Award Fee and a Mission Success Fee will be utilized in this contract. Refer to the attached Award Fee and Mission Success Fee Plan for details.

**H-521 FEE RISK COVENANT**

(a) Although the contractor may earn fee during the course of this contract, the parties agree that the Award Fee and Mission Success Fee earned during the EMD phase of the contract are earned at risk. Similarly, the parties agree that the Fixed-Price-Incentive profit (or fee), Award Fee, and Mission Success Fee earned during the Production phase are also earned at risk. This means that although the contractor has possession and use of earned fee, to retain possession of the fee it must provide a system that provides useful service over its life, as described herein.

(b) The Fee Determining Official (FDO) will make assessments every six months to retire fee risk. He or she will consider the inputs and suggestions of the contractor in the assessment, but the final decision is his or her subjective decision.

(c) EMD PHASE.

(1) For the EMD phase, fee risk reduction may begin in January 2007 or the January occurring at least one year following the NPP launch, whichever is earlier, with follow-on assessments every six months thereafter. For the EMD phase, the assessments are on total system performance.

(2) The initial fee risk retirement period runs through and includes the July 2009 assessment. The fee risk removal pool for this period is equal to the Award Fee and Mission Success Fee on the EMD CLINs earned to that point. Up to one-tenth of this risk may be removed at each six-month risk retirement assessment based on the FDO's subjective assessment of overall system performance during the previous six-month period. The FDO's assessment will be a numerical percentage between 100% and 0%, where 100% = completely successful and 0% = completely unsuccessful. The fee risk removed at that instance is a factor of the FDO's assessment percentage against the one-tenth figure available at that decision.

(3) The second fee risk retirement period starts with the January 2010 assessment and runs through the decision immediately following declaration of IOC. The fee risk removal pool for this period is equal to the EMD Award Fee and Mission Success Fee earned to that point, less the fee risk removed during the initial period. This means any fee risk not removed in the initial phase may yet be removed during the second phase. Up to one-tenth of this risk may be removed at each six-month risk retirement assessment based on the FDO's subjective assessment of overall system performance during the previous six-month period. The fee risk removed at each assessment is factored in the same manner as during the initial period described above.

(4) The final fee risk retirement period for the EMD phase starts with the second assessment after the IOC declaration and runs until all fee risk is removed. The fee risk removal pool for this period is equal to all the Award Fee and Mission Success Fee earned during the EMD phase, less the fee risk removed during the initial and second periods. This means any fee risk not removed in the initial and second periods may yet be removed during the final phase. Up to one-tenth of this risk may be removed at each six-month risk retirement assessment based on

the FDO's subjective assessment of overall system performance during the previous six-month period. The fee risk removed at each assessment is factored in the same manner as during the initial period described above.

(5) If the FDO fails to make a fee risk reduction assessment in January or July of any year, the contractor may treat this as a favorable 100% success assessment.

(6) The paragraph above indicates that the final period runs until all fee risk is removed. However, if at any time the FDO determines that the system is a complete and unrecoverable failure, then the contractor forfeits that portion of the fee which is still at risk. In such a case, the contracting officer will provide instructions to the contractor for the return of the forfeited fee.

(d) PRODUCTION PHASE.

(1) For each production option, fee risk reduction begins in the January following completion of the satellite, with follow-on assessments every six months thereafter. For the Production phase, each assessment is made on satellite performance.

(2) The initial fee risk retirement period runs through the assessment immediately preceding launch of the satellite. The fee risk removal pool for this period is equal to the actual profit arrived at through application of the fixed-price-incentive arrangement, the Award Fee, and the Mission Success Fee attributable to that satellite (however, it does not include the cost mitigation incentive, if any). Up to one-fourteenth of this risk may be removed at each six-month risk retirement assessment based on the FDO's subjective assessment of the satellite's success during the previous six-month period. The FDO's assessment will be a numerical percentage between 100% and 0%, where 100% = completely successful and 0% = completely unsuccessful. The fee risk removed at that instance is a factor of the FDO's assessment percentage against the one-fourteenth figure available at that assessment.

(3) The final fee risk retirement period starts with the assessment immediately following launch of the satellite and continues until all fee risk is removed. The fee risk removal pool for this period is unchanged from the initial period. Up to one-fourteenth of this risk may be removed at each six-month risk retirement assessment based on the FDO's subjective assessment of the satellite's success during the previous six-month period. The fee risk removed at each assessment is factored in the same manner as during the initial period described above.

(4) If the FDO fails to make a fee risk reduction assessment in January or July of any year, the contractor may treat this as a favorable 100% success assessment.

(5) The paragraph above indicates that the final period runs until all fee risk is removed. However, if at any time the FDO determines that the satellite is a complete and unrecoverable failure without regard to cause or fault, then the contractor forfeits that portion of the fee which is still at risk. In such a case, the contracting officer will provide instructions to the contractor for the return of the forfeited fee. A launch failure represents a complete and unrecoverable failure; in such a case, the parties agree that the fee risk removal figure shall be fifty percent and the contractor will forfeit the remaining fifty percent to the Government.

**H-524 COST MITIGATION INCENTIVE**

- (a) The Government desires insight into the pricing of the production options, including risk assumptions made by the contractor. The Government also desires the contractor's best efforts at controlling risk, taking advantage of cost savings and learning that occurs between award of the contract and exercise of the options, and so forth.
- (b) Eighteen months before the date set for exercise of an option for a replenishment satellite, the contractor may, at its discretion, propose a new and lower target cost and price for the option.
- (c) In such a case, the contractor will provide rationale for the price change, including updated assumptions, changed circumstances, and so forth, all with reference to the original cost proposal established at time of contract award.
- (d) If the Government considers the new lower price reasonable, it may modify the contract to reflect the new target cost and price. Changing the target cost shall not result in a change to the target profit, the award fee, or the mission success fee. In such a case, and if the option is subsequently exercised, the Government shall pay to the contractor an amount equal to one-half of the difference between the target cost before this negotiation and the target cost after this negotiation. This is illustrated below in a notional example where the target cost changes from \$100 to \$90—

	<u>AT AWARD OF CONTRACT</u>	<u>AT EXERCISE OF OPTION</u>	<u>AT COMPLETION OF PERFORMANCE</u>
Target Cost	\$100	\$90	*
Target Profit	\$10	\$10	*
Target Price	\$110	\$100	*
Award Fee	\$5	\$5	*
Mission Success Fee	\$5	\$5	*
Cost Mitigation Incentive	--	\$5	*
TOTAL PROFIT/FEE	\$20	\$25	*
TOTAL COST TO GOV'T	\$120	\$115	*

\*The actual cost will be determined at the end of performance, and the actual profit will be a mathematical calculation in accordance with the FPIF clause of the contract. The actual Award Fee and Mission Success Fee earned will be in accordance with the Award Fee and Mission Success Fee Plan.

**H-539 EARNED VALUE MANAGEMENT SYSTEM (EVMS)**

The contractor will provide routine reporting at WBS level 3 and level 4 (for sensors), and exception reporting at level 5. The contractor shall develop, implement, maintain, and use an EVMS that complies with Industry Guidelines of ANSI EIA 748-98. The contractor shall invite the Government to participate in Integrated Baseline Reviews within 90 days of contract award and at any subsequent detailed planning, including routine rolling wave planning and program replanning resulting from incorporation of contract modifications.

**H-541 SPECIAL STUDIES**

The Government may require the Contractor to accomplish certain special study efforts during the period of the contract.

**H-545 ENABLING CLAUSE(S) FOR FFRDCs AND OTHER IPO CONTRACTORS**

This contract covers part of the NPOESS program which is under the general program management of the tri-agency Integrated Program Office. The Government has entered into contracts with the Aerospace Corporation and the Mitre Corporation (Federally Funded Research and Development Centers (FFRDCs)) and other support contractors for services of technical groups which will support the NPOESS program office by performing various SETA services.

**H-548 KEY PERSONNEL**

(a) Year One (1) After Award Retention Goal.

(1) The contractor accepts a staffing goal that at least three-fourths of the key personnel will remain on the program full-time, for the first year after contract award. The key personnel positions are identified as follows—

***(Offeror Insert For Model Contract)***

(2) In the event the contractor does not achieve this goal, the Government may decrease the Award Fee pool for the development effort by an amount between \$0 and \$4,000,000. The assessed reduction will be allocated equally over the remaining award fee periods.

(3) The Government, at its discretion, may decide not to assess a reduction or minimize the reduction assessed in the event that the contractor is able to fill the vacated position(s) with similarly qualified individuals, can demonstrate that it has taken all reasonable measures to retain or acquire key personnel, shows that the person(s) in question left the company or retired, shows that the matters were beyond its control (e.g. person called to active military duty) or for other reasons deemed appropriate by the Government. The contractor may present its reasons for key personnel turnover to the Government.

(4) The Government will not assess a reduction if the Government is unable to obligate the contract funding profile for the one-year retention period.

(b) Year Two (2) After Award Retention Goal.

(1) The contractor accepts a staffing goal that at least one-half of the key personnel will remain on the program full-time, for the first two years after contract award. The key personnel positions are identified as follows—

***(Offeror Insert For Model Contract)***

(2) In the event the contractor does not achieve this goal, the Government may decrease the Award Fee pool for the development effort by an amount between \$0 and \$2,000,000. The assessed reduction will be allocated equally over the remaining award fee periods.

(3) The Government, at its discretion, may decide not to assess a reduction or minimize the reduction assessed in the event that the contractor is able to fill the vacated position(s) with similarly qualified individuals, can demonstrate that it has taken all reasonable measures to retain or acquire key personnel, shows that the person(s) in question left the company or retired, shows that the matters were beyond its control (e.g. person called to active military duty) or for other reasons deemed appropriate by the Government. The contractor may present its reasons for key personnel turnover to the Government.

(4) The Government will not assess a reduction if the Government is unable to obligate the contract funding profile that is planned for the two-year retention period.

#### **H-551 EXERCISE OF OPTIONS AS SEPARATE CONTRACTS**

The Government reserves the right to exercise any option as a separate contract at the time of exercise. In such case, the appropriate terms and conditions of this contract will be included in the new contract. The Government intends to use the terms and conditions as written in this contract.

#### **H-555 DATA DENIAL**

The contractor shall activate data denial upon order by the Program Director or the NPOESS Associate Director for Operations.

#### **H-559 INTEGRATED MASTER PLAN AND INTEGRATED MASTER SCHEDULE**

(a) General Description. The IMP and IMS are documents which provide insight into the process and related schedules associated with accomplishing the design, development, fabrication, testing, delivery, and support of the NPOESS. The primary consideration in the application of the IMP and IMS is to field a NPOESS that meets the contract specifications.

(b) Definition of Terms. The IMP is divided into three categories: Events, Significant Accomplishments, and Accomplishment Criteria, as defined below. The IMS consists of the Detail Tasks and Calendar Schedule relating to the IMP, as follows:

- (1) Event (IMP) - The conclusion/initiation of an interval of major program activity.
- (2) Significant Accomplishment (IMP) - Desired result at a specified event which indicates a level of design maturity (or progress) directly related to each product/process.
- (3) Accomplishment Criteria (IMP) - A definitive measure/indicator that the level of maturity (or progress) has been achieved.
- (4) Detailed Tasks (IMS) - Detailed work effort to be completed in support of a specific significant accomplishment.
- (5) Calendar Schedule (IMS) - Detailed schedule (dates) of the work effort to be completed.

(c) Flow Down IMP and IMS. The contractor shall flow down the requirements for preparation of an IMP and IMS to the major/critical subcontractors and vendors.

(d) Changes to the IMP. The IMP is Attachment 1 to the contract. Changes to the IMP can only be made by contract modification.

#### H-569 CRYPTOGRAPHIC EQUIPMENT

The contractor will acquire Flight Vehicle and Ground System Cryptographic Equipment from NSA approved sources.

#### H-571 LAUNCH SCHEDULE

(a) The NPOESS launch projections at time of award are based on the 15 AUG 2001 National Launch Forecast and based on the expected life expectancy of DMSP and POES, as follows—

<u>Satellite</u>	<u>Orbit</u>	<u>Launch Date</u>
C1	2130	April 2009
C2	1330	June 2011
C3	1730	April 2013

The forecast is subject to change. Changes in the launch schedule or sequence may provide a basis for adjusting the estimated cost or an award fee CLIN or the target cost of a FPIF CLIN, but the associated fee or target profit shall not be adjusted thereby.

#### H-574 BACK-UP OF FAILED LAUNCHES

(a) The program contemplates satellite availability and launch of the EMD satellites according to a nominal schedule as shown in H-571. However, the Government may issue a call-up for a satellite as a back-up for a failed N' or DMSP F-20 launch (one or the other, but not both). In such case, the contractor shall provide a satellite, configured with the sensors and instruments appropriate for its intended new orbit and prepared to be operational on-orbit, within **(offeror fill-in (ref: TRD 3.2.5.2-7))** days after call-up. Exercise of this call-up or other changes in the launch schedule or sequence may provide a basis for adjusting the estimated cost of CLIN 0100 and 0200, but the fee associated with these CLINs shall not be adjusted thereby.

(b) In the event the scheduled launch of an NPOESS EMD or Production satellite fails, the Government may issue a call-up for a back-up satellite. In such case, the contractor shall provide its next satellite, configured with the sensors and instruments appropriate for its intended new orbit and prepared to be operational on-orbit, within **(offeror fill-in (ref: TRD 3.2.5.2-7))** days after call-up. Exercise of this call-up or other changes in the launch schedule or sequence may provide a basis for adjusting the estimated cost (for an award fee CLIN) or target cost (for a FPIF CLIN), but the fee or target profit associated with these CLINs shall not be adjusted thereby.

(c) The contractor shall not be required to accommodate more than one call-up for premature failure during the life of the program (failure of N', F-20, or a NPOESS satellite).

**H-575 INITIAL OPERATIONAL CAPABILITY**

The NPOESS Program Director may declare Initial Operational Capability (IOC) when—

- (a) NPOESS satellites are operational in two different orbits;
- (b) The EDR attributes associated with those two orbits are satisfied;
- (c) All weather Centrals are receiving processed data; and
- (d) Field terminal software is available.

**H-581 NPOESS MISSION LIFE**

The NPOESS program mission life is 10 years and begins when the first capability to launch is achieved, i.e., when an NPOESS satellite is available to back-up the POES N' mission in 2008, and ends in 2018.

**H-583 PUBLIC RELEASIBILITY OF INFORMATION RELATED TO NPOESS**

Consistent with ITAR, all data related to NPOESS spacecraft and sensor design, C3S and IDPS utilization, Algorithm Theoretical Basis Documents for each EDR, and operational processing code will be releasable to the public. Exceptions may be granted by the Integrated Program Office on a case by case basis only when the vendor shows that release of information reveals company proprietary manufacturing processes.

**H-586 SECURITY CERTIFICATION AND ACCREDITATION SUPPORT**

(a) The contractor shall provide comprehensive security support to the NPOESS IPO through out the life of this contract. Security support shall include the development, implementation, and maintenance of all security documents, procedures, and agreements necessary to affect NPP/NPOESS type and site accreditation at all central locations, including SDS and ADS (notionally). Such support shall be conducted in accordance with the Department of Defense Information Technology Security Certification and Accreditation Process (DITSCAP – DODI 5200.40) and other Certification and Accreditation (C&A) guidance as necessary to support the joint nature of NPOESS. Further, the contractor shall comply with DoD 5200.28-STD Department of Defense Trusted Computer System Evaluation Criteria.

(b) The contractor, acting in the Total System Performance Responsibility capacity, will serve as a key security process and technology expert for the type and site Designated Approving Authorities (DAA). In addition, the contractor shall perform, and be responsible for, all the C&A functions assigned to the Certification Authority, Program Manager, and Developer/Integrator as outlined in DoDI 5200.40.

(c) Support shall include, but not be limited to, the development of all supporting documentation and the tasks necessary to complete Phases I through IV, including recurring recertification as outlined in DoDI 5200.40.

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**L&M-501 — COMBINED SECTIONS L AND M**

This is a combined Sections L and M. The rationale for the combining is to provide a clear linkage between the required proposal information and the way the Government plans to evaluate the proposal. The section focuses on the key program objectives contained in the executive summary and the Statement of Objectives (SOO). The entire thrust of the proposal instructions and the evaluation criteria is to understand the offeror's approach to meet the program objectives, support the acquisition strategy, and mitigate the existing risks.

**L&M-502 — SOURCE SELECTION OVERVIEW**

(a) For the convenience of the offeror, a summary of the source selection is provided here. Since this information only summarizes information found elsewhere in this combined Sections L & M, it cannot be relied upon alone. The offeror must read and understand this provision within the context of the entire combined Sections L & M. The Government reserves the right to deviate from the summary provided here as the need arises.

(b) Schedule. The schedule is based on two interested parties, identified here as Offeror A and Offeror B.

- Common cut-off date for submission of paper and electronic proposals, except for the Past Performance Volume which is due two weeks previously (see L&M-560 et seq.).
- Evaluation of Offeror A's proposal (see L&M-510 et seq.).
- Offeror A's Program Risk Mitigation Oral Presentation and clarifications (see L&M-517).
- Completion of Offeror A's evaluation (see L&M-510 et seq.).
- Evaluation of Offeror B's proposal (see L&M-510 et seq.).
- Offeror B's Program Risk Mitigation Oral Presentation and clarifications (see L&M-517).
- Completion of Offeror B's evaluation (see L&M-510 et seq.).
- Initial Status Briefings to SSAC and SSA (including a chart such as Table 510-1).
- Release of ENs to offerors.
- Initial Status Brief to offerors (includes EN review) (using the same charts briefed to the SSAC and SSA).
- EN responses returned to the Government on a common cut-off date.
- Government evaluation of the EN responses.
- Mid-Term Status Briefings to SSAC and SSA (including a chart such as Table 510-1).
- Mid-Term Status Briefings to offerors (using the same charts briefed to the SSAC and SSA).
- Final Proposal Revisions requested from both offerors.
- FPRs submitted with oral presentations (see L&M-519).
- FPRs evaluated.
- Decision Briefings to SSAC and SSA (including a chart such as Table 510-1).
- Award Decision.
- Award Announcement.
- Debriefings (using the same charts briefed to the SSAC and SSA).

(c) Proposal Submission. The offeror submittal requirements of this acquisition are summarized in L&M-560.

**L&M-505 — BASIS FOR CONTRACT AWARD**

(a) The Government will conduct this competitive negotiated acquisition in accordance with FAR Subpart 15.3, Source Selection, and the Defense and Air Force supplements thereto (especially AFFARS Subpart 5315.3, updated by Air Force Acquisition Circular 96-3, 31 Mar 2000). A trade-off process, as described in FAR 15.101-1, will be used in making the source selection decision. This decision will reflect the Source Selection Authority (SSA)'s integrated assessment of the merits of the offeror's submittal. The offeror must recognize that the subjective judgment of Government evaluators is implicit in the evaluation process. The Government contemplates awarding one contract resulting from this solicitation, but reserves the right to make more or no awards. Obtaining best value is the Government's intention. The Government reserves the right to award to a higher-price offeror if this provides the best value.

(b) Price (or cost) will be a part of the SSA's integrated assessment and decision. All evaluation factors other than price, when combined, are significantly more important than price. The offeror is encouraged to exceed minimum technical, performance, reliability and other stipulated Government requirements wherever feasible, provided a balanced approach is considered with respect to program schedule, risk, cost, and the program prioritizations described in L&M-520.

(c) The four evaluation factors are discussed in summary in L&M-510—Evaluation Criteria and in particular in Provisions L&M-511—Mission Capability Factor Evaluation, L&M-512—Past Performance Factor Evaluation, L&M-513—Proposal Risk Factor Evaluation, and L&M-514—Cost Proposal Evaluation. In addition to these, the SSA's integrated assessment and decision will include an evaluation of general considerations. These are—

(1) Adherence to Terms and Conditions (an evaluation of the offeror's proposed terms and conditions to ascertain business prudence and compliance with the terms and conditions intended within the solicitation);

(2) Overall soundness of the offeror's proposed approach;

(3) Subcontracting Plan (an evaluation of the offeror's Small, Small Disadvantaged, and Women-Owned Business Subcontracting Plan to ascertain whether the plan addresses the minimum goals for participation in the resulting contract by small businesses, small disadvantaged businesses, women-owned businesses, and Historically Black Colleges and Universities and Minority Institutions);

(4) Mentor-Protégé Agreements; and

(5) Proposed incentives, commitments, and warranties offered by the offeror for the Government's benefit during the life of the contract.

(d) Proposal information provided for one factor may be used to assess other factors if the Government deems it appropriate. However, the Government is not required to use information provided for one factor to assess other factors, unless the offeror makes specific references from one volume or section to the next. The Government may use other Past Performance data that was not provided by the offeror in its evaluation. A deficiency in one area of a proposal may result in the entire proposal being found to be unacceptable. Past performance problems not addressed by the offeror will be considered to be still in existence.

**L&M 510 EVALUATION CRITERIA**

(a) The Government will evaluate proposals, the Program Risk Mitigation Oral Presentation, and the Final Proposal Revision Oral Presentation against the factors and subfactors as depicted in Table 510-1. Factors 1, 2, and 3, when combined, are significantly more important than factor 4; however, cost will be a significant consideration in the selection decision (see FAR 15.304(e)).

**Table 510-1 — Evaluation Matrix**

			Mission Capability and Proposal Risk Subfactors			
			(subfactors equal in importance to each other)			
			1. System Performance	2. Segment Design	3. SEIT and Planning	4. Management and Organization
Evaluation Factors	(most important factors and equal to each other)	1. Mission Capability	B	B	B	B
			G	G	G	G
			Y	Y	Y	Y
			R	R	R	R
		2. Past Performance	High Confidence Significant Confidence Confidence Little Confidence No Confidence Unknown Confidence			
		3. Proposal Risk	H M-H M L-M L	H M-H M L-M L	H M-H M L-M L	H M-H M L-M L
	(least important factor)	4. Cost*	Proposed Cost: \$ _____ instant contract		Probable Cost: \$ _____ instant contract	
			\$ _____ life-cycle cost		\$ _____ life-cycle cost	

\* Proposed cost is the offeror’s proposed contract and life-cycle price to the Government and probable cost is the Government’s assessment of likely costs.

### L&M-511 — MISSION CAPABILITY FACTOR EVALUATION

The Mission Capability evaluation provides the offeror an opportunity to describe its proposed best-value system and explain how the system's performance satisfies the requirements of the TRD and meets objectives of the SOO. The Mission Capability factor is divided into four Mission Capability subfactors (these are listed in Table 510-1 and described in L&M-562). The Mission Capability Factor is evaluated at the subfactor level.

L&M-562 provides both the specific instructions to the offeror regarding the Mission Capability subfactors and the evaluation criteria with which the subfactors will be evaluated. The rating definitions in Table 511-1 will be used to evaluate each of the Mission Capability subfactors. The subfactor ratings will not be rolled-up into an overall Mission Capability rating. For ease in categorizing evaluator comments, each Mission Capability subfactor is divided into parts in L&M-562—however, these parts are not assigned a rating because ratings are only assigned at the subfactor level.

Table 511-1 — Mission Capability Evaluation Ratings (assigned at the subfactor level)		
Color—	Rating—	Definition—
<b>B</b>	Exceptional	Exceeds specified minimum performance or capability requirements in a way beneficial to the Government.
<b>G</b>	Acceptable	Meets specified minimum performance or capability requirements necessary for acceptable contract performance.
<b>Y</b>	Marginal	Does not clearly meet some specified minimum performance or capability requirements necessary for acceptable contract performance, but any proposal inadequacies are correctable.
<b>R</b>	Unacceptable	Fails to meet specified minimum performance or capability requirements. Proposals with an unacceptable rating are not awardable.
Source: AFFARS 5315.305(a)(3)(i).		

**L&M-512 — PAST PERFORMANCE FACTOR EVALUATION**

(a) The Government intends to conduct a Past Performance evaluation using information in Volume 3 of the offeror's proposal, along with any other past or present performance information available, including previous, relevant, past performance evaluations (i.e. PDRR source selections). Material defining performance since March 1997 (past 5 years) will be considered relevant. It is incumbent upon the offeror to explain the relevance of all data provided. Relevant past performance information will be obtained through CPARS; questionnaires tailored to the circumstances of this acquisition; Defense Contract Management Agency (DCMA) channels; and interviews with program managers and Contracting Officers, or other sources known to the Government, including commercial sources. In conducting the performance confidence assessment, will use both data provided by the offeror and data obtained from other sources. This information may include data on efforts performed by other divisions, critical subcontractors, or teaming contractors, if such resources will be brought to bear or significantly influence the performance of the proposed effort. Offerors will be provided an opportunity to address any negative or adverse past performance information received by the PRAG during this evaluation (subject to the restrictions of FAR 15.306(e)(4)), which they have not had an opportunity to address in the past.

(b) The Performance Risk Assessment Group (PRAG) will evaluate relevant current and past performance to assess confidence in the ability of the offeror's team to meet the requirements of this solicitation. The PRAG will assess the demonstrated record of performance of each offeror's team in relevant management, cost, and technical experience with the life-cycle development of similar systems, including, but not limited to, space-based remote sensing systems, distributed ground and communications architectures, large software development contracts, multi-satellite constellations, taskable satellite systems, on-orbit operations, and producibility/production experience of the offeror and the offeror's participating divisions and proposed subcontractors. Experience of the offeror as a subcontractor on similar efforts, commercial work, and independent research and development (IRAD) are also relevant. The Government will consider the team's demonstrated record of contract compliance, including cost and schedule, in supplying products and services that meet users' needs. The Government will also be factoring problem solving, implementation methods, and success rates into the offeror's overall past performance assessment. The performance risk assessment will be focused on the mission capability subfactors and cost control. Based on these subfactor evaluations, an overall performance risk rating encompassing the offeror's proposal, as a whole will be assigned.

(b) Contracts involving tasks and products that most closely resemble the work that the contractor/subcontractor will accomplish on NPOESS EMD/Production will have the most relevancy. More recent and relevant performance will have a greater impact on the Performance Confidence Assessment than less recent or relevant effort. A strong record of relevant past performance may be considered more advantageous to the Government than an "Unknown Confidence" rating. Likewise, a more relevant past performance record may receive a higher confidence rating and be considered more favorably than a less relevant record of good performance.

(c) A past performance confidence assessment will be done at the subfactor level and integrated into an overall past performance factor confidence recommendation, using the ratings of High Confidence, Significant Confidence, Confidence, Unknown Confidence, Little Confidence, or No Confidence, as defined in Table L&M-512-1. Ratings will be based on the degree of doubt that exists regarding the offeror's likelihood to successfully perform the required effort as promised. Where no relevant past performance is available, an Unknown Confidence rating shall be applied.

<b>Table 512-1 — Past Performance Evaluation Ratings (assigned at the factor level)</b>	
<b>Rating—</b>	<b>Definition—</b>
HIGH CONFIDENCE:	(Exceptional Confidence) Based on the offeror's performance record, essentially no doubt exists that the offeror will successfully perform the required effort.
SIGNIFICANT CONFIDENCE	(Very Good Confidence) Based on the offeror's performance record, little doubt exists that the offeror will successfully perform the required effort.
CONFIDENCE	(Satisfactory Confidence) Based on the offeror's performance record, some doubt exists that the offeror will successfully perform the required effort.
LITTLE CONFIDENCE	(Marginal Confidence) Based on the offeror's performance record, substantial doubt exists that the offeror will successfully perform the required effort. Changes to the offeror's existing process may be necessary in order to achieve contract requirements.
NO CONFIDENCE	(Unsatisfactory Confidence) Based on the offeror's performance record, extreme doubt exists that the offeror will successfully perform the required effort.
UNKNOWN CONFIDENCE	No performance record identifiable (see FAR 15.305(a)(2)(iii) and (iv)).
Source: AFFARS 5315.305 (a)(2)(S-92)	

(d) Relevancy is a threshold question when considering past performance, not a separate element of past performance. A "1" to "5" relevancy rating will be used. A contract rated "3" or higher will be considered relevant for this solicitation. Irrelevant past performance will not be evaluated. The following table will be used as a guide for determining relevancy.

**Table L&M 512-2**

MC Subfactor	Relevancy Ratings					
System Performance	None	Low = 1	Med Low = 2	Medium = 3	Med High = 4	High = 5
Segment Design						
SEIT & Planning						
Management & Organization						
Cost						
	Irrelevant			Relevant		

**NOTE:** A rating of 4 or 2 is possible. A 4 rating shall be given when past performance data exceeds the criteria of a 3 but does not fully meet the criteria of a 5. A 2 rating shall be given when past performance data exceeds the criteria of a 1 but does not fully meet the criteria of a 3.

**NOTE:** The Government will regard as relevant only information pertaining to contracts currently in development or production, completed, or awarded since March 1997.

(e) The criteria detailed in Table L&M 512-3 will be used to establish a relevancy for each submitted contract.

**Table L&M 512-3 Relevancy Criteria Tables**

<b>Mission Capability</b>				
<b>System Performance</b>				
	High = 5	Medium = 3	Low = 1	None = 0
Relevancy Rating Equally relevant to hardware and software contracts	Since March 1997: Was in an EMD phase (higher relevance since this is the kind of contract we're looking for) - <b>AND</b> – Includes both space and ground elements - <b>AND</b> – Includes "TSPR-like" system performance responsibilities	Since March 1997: Was in a Concept Definition phase - <b>AND</b> – Includes a space element - <b>OR</b> – (an AND here would make this a relevancy of 4) Includes a ground element - <b>AND</b> – Includes "TSPR-like" system performance responsibilities	Since March 1997: Was in a pre-Concept Definition - <b>OR</b> – (an AND here would make this a relevancy of 2) Includes a space or ground element - <b>OR</b> – (an AND would make this a relevancy of 2) Includes "TSPR-like" system performance responsibilities	Since March 1997: Was not involved in any Government acquisition process - <b>AND</b> – Does not include a space or ground element - <b>AND</b> – Does not include "TSPR-like" system performance responsibilities

<b>Segment Design</b>				
	High = 5	Medium = 3	Low = 1	None = 0
Relevancy Rating Note: If system is not operational, decrease relevancy by at least one point	Since March 1997: Directly involved with the construction and/or operation of a new space environmental data collection system. - <b>AND</b> - Directly involved with the integration and/or operation of multiple independent <u>sensors</u> in a single space platform. - <b>AND</b> - Directly involved with the <u>development</u> and/or operation of a new ground environmental data processing system - <b>OR</b> - Directly involved with the <u>integration</u> of environmental data into existing ground systems	Since March 1997: Directly involved with the construction and/or operation of a new space environmental data collection system. - <b>OR</b> – (an AND here would make this a relevancy of 4) Directly involved the integration of multiple independent <u>components</u> into a single space system - <b>OR</b> - Directly involved with the <u>integration</u> of environmental data into existing ground systems	Since March 1997: Involved only sensors or components of a system - <b>OR</b> – (an AND here would make this a relevancy of 2) Involved integration of a single component into one system - <b>OR</b> – (an AND here would make this a relevancy of 2) Involved with only sending data to ground systems	Since March 1997: Was not involved with any system - <b>AND</b> – Not involved with any integration of a space system - <b>AND</b> – Not involved with a ground comm. or architecture.

**Table L&M 512-3 Relevancy Criteria Tables (cont'd)**

System Engineering, Integration, and Test (SEIT) & Planning				
	High = 5	Medium = 3	Low = 1	None = 0
	<p>Since March 1997: Directly involved with testing AND calibrating a spaceborne environmental (i.e. meteorological) data collection &amp; processing system AND directly involved with developing and maintaining plans.</p> <p><b>-AND-</b></p> <p>Directly involved with multiple satellite/sensor AND comm. interfaces (satellite/ground/ user)</p> <p><b>-AND-</b></p> <p>Involved with environmental (i.e. meteorological) data processing</p>	<p>Since March 1997: Directly involved with testing AND calibrating a spaceborne data collection &amp; processing system AND directly involved with developing and maintaining plans.</p> <p><b>- OR –</b></p> <p>(an AND here would make this a relevancy of 4)</p> <p>Directly involved with multiple satellite/sensor AND comm. interfaces (satellite/ground/ user)</p> <p><b>- OR –</b></p> <p>(an AND here would make this a relevancy of 4)</p> <p>Involved with data processing</p>	<p>Since March 1997: Involved with testing AND calibrating a spaceborne data collection &amp; processing system OR had plans developed and maintained by an external agency.</p> <p><b>- OR –</b></p> <p>(an AND here would make this a relevancy of 2)</p> <p>Involved any data interfacing effort</p> <p><b>- OR –</b></p> <p>(an AND here would make this a relevancy of 2)</p> <p>Involved any data effort</p>	<p>Since March 1997: Was not involved with any spaceborne data collection &amp; processing system OR no plans were involved.</p> <p><b>- AND –</b></p> <p>Not involved with complex satellite/sensor interfaces AND complex comm. interfaces (satellite/ground/ user)</p> <p><b>- AND –</b></p> <p>Not involved with any data effort</p>

Management and Organization				
	High = 5	Medium = 3	Low = 1	None = 0
Relevancy Rating Equally relevant to hardware and software contracts	<p>Since March 1997: Directly involved in building OR operating a spaceborne data collection &amp; processing system.</p> <p><b>-AND-</b></p> <p>Involved with processing data into products for multiple users</p>	<p>Since March 1997: Directly involved in enhancing an existing spaceborne data collection &amp; processing system.</p> <p><b>- OR –</b></p> <p>(an AND here would make this a relevancy of 4)</p> <p>Involved processing data into products for multiple users</p>	<p>Since March 1997: Involved in spaceborne data collection &amp; processing effort.</p> <p><b>- OR –</b></p> <p>(an AND here would make this a relevancy of 2)</p> <p>Involved in producing any kind of information for the user</p>	<p>Since March 1997: Was not involved with any data collection &amp; processing effort.</p> <p><b>- AND –</b></p> <p>Not involved with producing any information for a customer</p>

Cost				
	High = 5	Medium = 3	Low = 1	None = 0
Relevancy Rating Equally relevant to hardware and software contracts (This is the only area considering performance over more than the past 5 years)	<p>&gt; \$200M</p> <p><b>-AND-</b></p> <p>&gt; 5 year effort duration</p>	<p>\$100M - \$200M</p> <p><b>- AND –</b></p> <p>&gt; 3 year effort duration</p>	<p>&lt; \$100M</p> <p><b>- OR -</b></p> <p>&lt; 3 year effort duration</p>	<p>No contracts experience.</p>

**L&M-513 — PROPOSAL RISK FACTOR EVALUATION**

(a) The Proposal Risk assessment focuses on the risks and weaknesses associated with an offeror's proposed approach. Assessment of risk is done at the Mission Capability subfactor level, and includes potential for disruption of schedule, increased cost, degradation of performance and the need for increased Government oversight as well as the likelihood of unsuccessful contract performance. The subfactor evaluations are not rolled-up into an overall Proposal Risk rating but are presented at the subfactor level.

(b) There is no separate proposal volume for the Proposal Risk Factor. Information from the other proposal volumes and the Proposal Risk Mitigation Oral Presentation will be used to rate proposal risk. The proposal risk ratings will reflect the Government's assessment of the risk associated with each offeror's approach, using the rating definitions in Table 513-1 (Proposal Risk Evaluation Ratings).

<b>Table 513-1 — Proposal Risk Evaluation Ratings (assigned at the Mission Capability subfactor level)</b>	
<b>Rating—</b>	<b>Definition—</b>
<b>H</b>	High. Likely to cause significant disruption of schedule, increased cost or degradation of performance. Risk may be unacceptable even with special contractor emphasis and close Government monitoring.
<b>M-H</b>	Moderate-High. In between Moderate and High.
<b>M</b>	Moderate. Can potentially cause some disruption of schedule, increase in cost, or degradation of performance. However, special contractor emphasis and close Government monitoring will probably be able to overcome difficulties.
<b>L-M</b>	Low-Moderate. In between Low and Moderate.
<b>L</b>	Low. Has little potential to cause disruption of schedule, increase in cost, or degradation of performance. Normal contractor effort and normal Government monitoring will probably be able to overcome difficulties.
Source: AFFARS 5315.505(a)(3)(ii) for H, M, and L ratings. M-H and L-M ratings will be used when the Government's evaluation does not provide an unambiguous H, M, or L rating.	

**L&M-514 — COST FACTOR EVALUATION**

(a) Cost will be evaluated for realism and reasonableness. Each element of cost shall have a program risk assessment that will be dollarized to develop a Probable Cost (PC) estimate. The Government will use the PC to evaluate contract cost.

(b) These instructions are provided to assist the offeror in developing and presenting information required to support the Cost Proposal. Compliance with these instructions is mandatory and failure to comply may result in the proposal being determined to be non-responsive to the solicitation.

(c) Cost Information Requirements. In accordance with FAR 15.403-1(b) and 15.403-3(a), information other than cost or pricing data is required to support the Government's evaluation of price reasonableness and cost realism. Information required shall be provided in accordance with the tailored formats specified hereunder. However, use of offeror formats is encouraged providing that all the required information is made available. This information is not considered cost or pricing data and thus certification is not required in accordance with FAR 15.406-2. If, after receipt of proposals, the contracting officer determines that there is insufficient information available to determine price reasonableness and none of the exceptions at FAR Subpart 15.403-1 apply, the offeror will be required to submit cost or pricing data.

(d) Required Data. All information relating to the proposed cost or pricing data, including all required supporting documentation, must be included in the section of the proposal designated as the Cost Proposal volume. Cost-related information such as cost trade-off information, work hour estimates, and material kinds and quantities may be used in other volumes only to the limited extent necessary.

(e) Estimating Techniques and Methods. The offeror and its subcontractors may submit cost estimates using appropriately validated parametric models that are part of its disclosed cost estimating systems. These cost estimates shall include contemporary estimating methods such as cost-to-cost and cost-to-non-cost estimating relationships (CERs); commercially available parametric cost models; and in-house developed parametric cost models. If necessary, reasonable and supportable allocation techniques may be used to spread hours and/or cost to lower levels of the Work Breakdown Structure (WBS). The offeror's use or non-use of parametric estimating techniques for this proposal will not be a factor (positive or negative) in the evaluation of the offeror's response to this solicitation. Cost estimates submitted using such parametric models shall produce cost estimates that are reasonable and consistent and as such create a basis for negotiation of price.

(f) Offeror Cost Model and Cost Proposal. The offeror may reference its life-cycle cost estimate model submitted in its Cost Volume as a response to other requirements listed in this RFP. However, the information requested below must be contained in the contractor LCCE model. In addition, if the information is not identified in the same format, the offeror shall provide a detailed explanation as to where the information will be found.

(g) Instructions. The offeror shall provide the Cost/Price Volume in four sections described in L&M-564.

(h) Cost Evaluation Criteria. The evaluation of contract price will include an assessment of realism and reasonableness as defined below. Any supplemental cost proposals submitted in accordance with this Section will also be assessed for realism and reasonableness.

(1) Realism.

(A) To ensure that the offeror's proposed costs are consistent with its technical proposal and reflect a clear understanding of the program requirements, the Government will perform a Cost Realism Analysis (CRA) in accordance with FAR 15.404-1(d)(2). This is an assessment of the compatibility of the proposed cost with the proposal scope and efforts, the list of estimating ground rules and assumptions, and the schedule duration.

(B) As part of the CRA, the Government will develop a Probable Cost (PC) for each offeror's cost

proposal in accordance with FAR 15.404-1(d)(2)(ii). The offeror's cost/price proposal will be evaluated by using the PC. The offeror's proposed estimated costs for the basic effort and proposed target price, ceiling price, and share ratio for the optional effort shall not be controlling for source selection purposes. PC shall be determined and measured as the Government estimate of anticipated performance.

(C) The PC will include any additional costs deemed necessary for performance under the contract such as, but not limited to award fee, target profit, Government-Furnished Property (GFP), Government facilities, and may include risk mitigation costs applicable to any proposal risk subfactor rated other than "low". In addition, the PC will include the Government's estimate of any cost impacts resulting from demands imposed by the sensor on spacecraft performance, for example, resulting from sensor-unique accommodation issues.

(D) The burden of proof regarding cost credibility rests with the offeror. Proposal risk will be increased in any offer determined unrealistically low compared to the anticipated costs of performance and without reasonable and complete explanation. In this case, the Government will assume the offeror does not have an understanding of the technical requirements of the corresponding mission capability subfactor(s). Evaluators may factor this assumption into the PC determination.

(2) Reasonableness.

(A) Reasonableness of an offeror's proposal will be evaluated using one or more price analysis techniques described in FAR Subpart 15.404-1(b). If the Contracting Officer determines that Adequate Price Competition (APC) has not been obtained, reasonableness will be evaluated using cost analysis techniques described in FAR Subpart 15.404-1(c).

(B) Compliance with Near Term Funding Profile. The offeror's proposed cost will be evaluated to ensure that it substantially complies cumulatively with the near term funding profile (FY02-07 TY\$ at Threshold Only). Any exceptions need to be adequately justified.

(C) Reconciliation of LCCE. The LCCE shall be evaluated to ensure that all differences between the cost proposal and the LCCE are reconcilable and substantiated and that appropriation types required and timing are consistent with DoD and DOC funding policy. If an alternate non-standard funding policy is also proposed, then the explanation of the non-standard funding approach and other exceptions to funding policy are fully substantiated and defensible. The offer shall not be contingent on acceptance of the alternate funding approach.

**L&M-517 — PROGRAM RISK MITIGATION ORAL PRESENTATION**

(a) Each offeror shall substantiate its designs, and technical and management approaches during a Program Risk Mitigation Oral Presentation that may not exceed ten working days. This presentation includes the material required to be delivered during the NPOESS Program Definition and Risk Reduction Preliminary Design Review (PDR) and Ground Demonstration Four plus additional system engineering and integration, program plan, management and organization and cost information needed to support the offeror's proposal in its Mission Capability, Past Performance, and Cost volumes. The technical portion of the oral presentation should follow the sequence of the Mission Capability subfactors that is outlined in L&M-561, unless simultaneous sessions are held.

(b) The offeror is responsible for planning and scheduling the combined Program Risk Mitigation Oral Presentation at its own facility. Where the offeror contemplates simultaneous technical, cost, or past performance sessions, it will obtain the concurrence of the contracting officer. The offeror may, and is expected to, request and obtain this concurrence before submitting its proposal. The workday shall not exceed 9 hours for each day, inclusive of lunch and breaks. The offeror shall provide the Government a half-hour caucus at least four times a day. The briefing charts used during the Program Risk Mitigation Oral Presentation shall be the same charts submitted as Volume 5 of the proposal and shall not be updated prior to presenting the information.

(c) The purpose of the oral presentation is to allow for clarification and substantiation of the assertions made in the offeror's proposal. The offeror is cautioned that this is not a forum for negotiations, bargaining, or changing or adding to the offeror's proposal; accordingly, the offeror's proposal as contained in its Mission Capability, Past Performance, and Cost Volumes should be as complete as practicable. The Government will evaluate the Program Risk Mitigation Oral Presentation only to substantiate and reinforce its Mission Capability, Past Performance, Proposal Risk, and Cost evaluations. The Program Risk Mitigation Oral Presentation will be evaluated for overall substantiation of the proposal and the risk mitigation plans that the offeror plans to implement. This includes the data that substantiates the progress-to-date and the offeror's approach to continue progress and mitigation efforts.

(d) Clarification questions will be provided to the offeror no later than the morning of the first day of the oral presentation, and the offeror may address these clarifications during the course of its oral presentation and by paper response before the close of the oral presentation.

(e) The requirements for the Program Risk Mitigation Oral Presentation Volume of the proposal are found at L&M-565.

(f) The Government's use of the PDR as an oral presentation in the source selection does not in any way relieve the offeror of its contractual duties under its PDRR contract.

**L&M-519 — FINAL PROPOSAL REVISION ORAL PRESENTATION**

(a) The offeror will be invited to give an oral presentation at the time its final proposal revision is submitted. The oral presentation will be at the Government's facilities in Silver Spring, Maryland. The offeror is responsible for videotaping the oral presentation and providing a videotape of the oral presentation to the Government immediately upon its conclusion.

(b) The Government will notify the offeror of the date and time for its oral presentation at least one week beforehand, and will provide the offeror access to the presentation room two hours before the oral presentation is scheduled to begin.

(c) The offeror will be allowed three hours to present their FPR. The FPR presentation shall focus on the deltas to the previously submitted proposal. After the offeror's presentation the Government will caucus to develop questions. The questions will then be provided to the offeror. The offeror will then be required to provide oral responses to the questions on the morning of the next day.

## L&M-520 — NPOESS SYSTEM PRIORITIZATIONS

(a) The most critical NPOESS requirements or key performance parameters (KPPs) (Category IA EDRs, Data Access, & Interoperability) are considered minimum, measurable capabilities or characteristics required to satisfy the users' needs, and offers not meeting thresholds in these areas are deficient (see AFFARS 5315.301-90(o)).

(b) For non-KPP performance thresholds, the offeror is provided limited flexibility to propose solutions that may not meet threshold requirements as defined in AFFARS 5315.301-90(o). For this purpose, the use of the terms "threshold performance requirement", "threshold requirement", or "threshold" in this solicitation and the associated source selection process, including proposal evaluations, does not follow the definitions in AFFARS 5315.301-90(o). The evaluation requirements, criteria, and process for this evaluation have been structured to provide the offeror with flexibility and trade space in its proposed solutions with respect to technical/design trades and Cost-As-an-Independent-Variable (CAIV) considerations and other program prioritizations as described in this provision. The burden is on the offeror to provide convincing rationale for the Government's acceptance of such solutions when an offeror's trades result in performance below threshold.

Table 520-1 — NPOESS Integrated Requirements Priority List (IRPL)	
Ranking	Requirements
1	Category 1A EDRs*, Data Access, Interoperability
2	Data Availability, and System Ao
3	Category IIA EDRs*
4	Category IIB EDRs*
5	Cost
6	ILS (Includes OPS); Flexibility, Expansion, and Robustness (Includes new instruments, new/upgraded algorithms, rapid prototyping, loss of a node, replenishment, field terminal S/W approach, etc.)
7	Category IIIB EDRs*
8	Survivability [TRD App B]
9	P3I EDRs*
*EDR includes all attributes (including latency) and associated RDRs	

(c) Performance parameters stated as objectives follow the definition in AFFARS 5315-301-90(b) and represent the capability or characteristic desired by the user which the program manager would like to obtain. An "objective performance requirement", "objective requirement", or "objective" is a measurable, desirable capability or characteristic above the threshold and which represents an operationally meaningful increment above the threshold performance requirement.

(d) For the purpose of providing insight to the offeror as it crafts its best-value solution, NPOESS EDRs, including all attributes, have been divided into two types of categories: Threshold Categories (I, II, and III) and Objective Categories (A and B) as listed in Table 520-2—Consolidated NPOESS EDR Prioritization List. Categories I, II, and III determine ranking of threshold requirements. Categories A and B determine relative importance of exceeding thresholds or approaching objectives. EDR characteristics include all attributes (including latency) and associated RDRs. These categories are—

Category I-A. Trades addressing performance below TRD Threshold levels are not of interest. There is substantial value to the Government if thresholds are exceeded and objectives are approached.

Category II-A. Achievement of TRD threshold levels is expected, but an offer with trades addressing performance below TRD threshold levels may be acceptable only where the thresholds are significant design or cost drivers and below-threshold performance will provide significant benefit to the Government in the offeror's overall best-value solution (e.g., reduced cost, improved performance in other EDRs, improved spacecraft accommodation, etc.). There is value to the Government if thresholds are exceeded and objectives are approached.

Category II-B. Same as Category IIA, except that there is lesser value to the Government if

thresholds are exceeded.

Category III-B. TRD threshold level performance is expected but satisfaction of these EDRs should not significantly drive system design or cost. An offer with trades addressing performance below TRD threshold levels may be acceptable. There is little value to the Government if thresholds are exceeded.

**Table 520-2 — Consolidated NPOESS EDR Prioritization List**

Baseline NPOESS EDRs (55) derived from IORD II, as modified and reflected in latest version of the NPOESS TRD, Appendix D. P3I EDRs not shown. Sensor assignments are “notional” Government allocations. [p] = primary contributor; [aw] = all weather.

EDR	Cat.	Sensor	EDR	Cat.	Sensor	EDR	Cat.	Sensor
Atmospheric Vertical Moisture Profile (KPP)	I-A	CrIS/ATMS[p]/-CMIS[aw]	Water Vapor			Cloud Base Height	III-B	VIIRS/CMIS
Atmospheric Vertical Temperature Profile (KPP)	I-A	CrIS/ATMS[p]	Precipitation (Type/Rate)	II-A	CMIS	Global Sea Surface Wind Stress	III-B	CMIS
Global Sea Surface Winds (Speed) (KPP)	I-A	CMIS	Sea Ice Characterization	II-A	VIIRS[p]	Imagery	III-B	CMIS[aw]
Imagery (KPP)	I-A	VIIRS[p]	Sea Surface Height/Topography	II-A	Altimeter	In-situ Plasma Fluctuations	III-B	SESS
Sea Surface Temperature (KPP)	I-A	VIIRS	Sea Surface Temperature	II-A	CMIS[aw]	In-situ Plasma Temperature	III-B	SESS
Soil Moisture (KPP)	I-A	CMIS	Snow Cover/Depth	II-A	VIIRS[p]	Ionospheric Scintillation	III-B	SESS/-GPSOS[p]
Aerosol Optical Thickness	II-A	VIIRS	Surface Type	II-A	VIIRS	Net Heat Flux	III-B	VIIRS
Aerosol Particle Size	II-A	VIIRS	Active Fires (Application of Surface Type)	II-B	VIIRS	Pressure (Surface/Profile)	III-B	CrIS/ATMS/-CMIS
Albedo (surface)	II-A	VIIRS	Suspended Matter	II-A	VIIRS	Snow Cover/Depth	III-B	CMIS[aw]
Atmospheric Vertical Temperature Profile	II-A	CMIS[aw]	Total Water Content	II-A	CMIS	Soil Moisture	III-B	VIIRS
Auroral Boundary	II-A	SESS	Vegetation Index	II-A	VIIRS	Surface Type	III-B	CMIS
Cloud Cover/Layers	II-A	VIIRS	Aerosol Optical Thickness	II-B	APS			
Cloud Effective Particle Size	II-A	VIIRS	Aerosol Particle Size	II-B	APS			
Cloud Ice Water Path	II-A	CMIS	Aerosol Refractive Index, SSA, and Shape	II-B	APS (aerosol)			
Cloud Liquid Water	II-A	CMIS	Auroral Energy Deposition	II-B	SESS			
Cloud Optical Thickness	II-A	VIIRS	Cloud Particle Size Distribution	II-B	APS (aerosol)			
Cloud Top Height	II-A	VIIRS	Downward Long-wave Radiation (surface)	II-B	ERBS			
Cloud Top Pressure	II-A	VIIRS	Downward Short-wave Radiation (surface)	II-B	ERBS			
Cloud Top Temperature	II-A	VIIRS	Energetic Ions	II-B	SESS			
Electric Field	II-A	SESS	Ice Surface Temperature	II-B	CMIS[aw]			
Electron Density Profile	II-A	SESS/-GPSOS[p]	Land Surface Temperature	II-B	CMIS[aw]			
Geomagnetic Field	II-A	SESS	Medium Energy Charged Particles	II-B	SESS			
Global Sea Surface Winds (Direction)	II-A	CMIS	Net Solar Radiation (TOA)	II-B	ERBS			
Ice Surface Temperature	II-A	VIIRS	Neutral Density Profile	II-B	SESS			
Land Surface Temperature	II-A	VIIRS	Outgoing Long-wave Radiation (TOA)	II-B	ERBS			
Ocean Color	II-A	VIIRS	Precipitable Water/Integrated Water Vapor	II-B	VIIRS			
Ocean Wave Characteristics/Significant Wave Height	II-A	Altimeter	Sea Ice Characterization	II-B	CMIS[aw]			
Ozone (Total Column)	II-A	OMPS	Solar Irradiance	II-B	TSIS			
Ozone (Vertical Profile)	II-A	OMPS	Supra-thermal to Auroral Energy Particles	II-B	SESS			
Precipitable Water/Integrated	II-A	CMIS	Auroral Imagery	III-B	SESS			

**L&M-522 — GENERAL INSTRUCTIONS**

**(a) General Guidance.** The paragraphs below contain the instructions for preparing and submitting a proposal in response to the NPOESS Engineering and Manufacturing Development and Production phase Request For Proposal (RFP). The offeror shall provide a single proposal that is fully integrated across all functional areas and is responsive to the NPOESS SOO, the TRD, this Section and all other aspects of the solicitation. Requested information may be satisfied by a range of substantiating data from design philosophy, analysis, laboratory and other data. However, any information submitted shall have a clear explanation as to where it came from and how it was derived. The offeror's proposal must contain all the pertinent information in sufficient detail to permit evaluation of the proposed program.

**(b) Content.** The offeror's proposal must clearly and convincingly demonstrate that the offeror: has a thorough understanding of the solicitation and associated risks; has valid and practical solutions for all requirements; and has processes or can obtain access to required resources to fulfill all the requirements. Unsubstantiated statements that the offeror understands, or can or will comply with the requirements, and statements that only paraphrase the requirements or parts thereof are inadequate. The offeror is advised that the quality of information is more important than the quantity. Clarity, brevity, and logical organization should be emphasized during the proposal preparation. It is the responsibility of the offeror to present enough information to allow award without discussions. The offeror must include any data necessary to substantiate his system performance baseline and illustrate the adequacy of the various assumptions, design approaches, and solutions to problems. There is no need to repeat information in more than one section if an overlap exists; the detailed information should be included in the most logical place and summarized or referenced in the other areas. Unnecessarily elaborate proposals are neither necessary nor desired. The offeror shall submit an offer and other written proposal information in accordance with instructions within this Section.

**(c) Contractor Investment.** The Government will not accept any proposed offeror investment in the NPOESS EMD and Production phase, nor will any proposed investments be used in the evaluation.

**(d) Alternate Proposals.** Alternate proposals are not permitted in response to the solicitation.

**(e) Classified Proposals.** The Government anticipates that proposals will include classified information. The PCO's approval is required prior to the offeror's submission of classified information, and such approval should be obtained well before proposals are due. The request shall specifically identify the factors and subfactors which the classified information will influence and the clearance levels so that the Government can arrange for properly cleared persons to evaluate the materials. If it is necessary to include classified information, the classified portions of the affected proposal volumes shall be submitted under a separate cover (hardcopy only) in accordance with DoD 5220.22-M, National Industrial Security Program Operating Manual (NISPOM) and PCO instructions. Classified pages shall count against the total page limitation (if any) for the affected volume.

**(f) World Wide Web Access.** The RFP documents and any amendments thereto and general program information is available through the NPOESS Electronic Library at the following World Wide Web address: <http://npoesslib.ipn.noaa.gov/EMD.htm>

**(g) Reference Library.** A reference library is available to the offeror at the NPOESS Integrated Program Office, Suite 1450, 8455 Colesville Rd., Silver Spring, MD, 20910. The library point of contact is Ms. Jane Jacob, (301) 415-0400, ext 120 and is available Monday through Friday, 0800 to 1600 EST, except federal holidays. A list of library contents and many of the listed documents also are available through the NPOESS Electronic Library at the following Internet address: <http://npoesslib.ipn.noaa.gov>

**L&M-523 — USE OF CONTRACTOR SUPPORT SERVICES**

(a) Prospective offerors are hereby notified that the Government intends to use the following contractors to support the process of evaluating proposals received in response to the solicitation—

SRI International	Systems Engineering & Technical Advice (SETA)
BD Systems	SETA
Mitretek Systems	SETA
User Technology Associates	SETA
Veridian Systems	SETA
Tecolote Research, Inc.	Specialized Cost Analysis Support (SCAS)
The Aerospace Corporation	Federally Funded Research/ Development Center (FFRDC)
MIT/Lincoln Laboratory	Federally Funded Research/ Development Center
The MITRE Corporation	Federally Funded Research/ Development Center
Information Analysis Incorporated	SETA

(b) Contractor personnel and firms used to support the evaluation process sign non-disclosure statements with the Government. Submission of a proposal will be deemed to be the offeror's consent for the Government to use the aforementioned contractor personnel to support the proposal evaluation process.

**L&M-525 — PROPOSAL FORMAT FOR PAPER SUBMISSIONS**

(a) **Proposal Organization and Page Limits.** The offeror shall submit its proposal in hard copy and electronic format delivered on CD-ROM. Cover pages, table of contents, listing of figures, ~~and~~ indices, and cross-reference matrices may be used and will not be included in the page count. Annexes, appendices, and attachments to the proposal will be included in the page count unless the RFP specifically excludes them elsewhere. Any pages in excess of the limit will be deleted from the end of the proposal and will not be read or evaluated. A transmittal letter may be used to forward the proposals to the Contracting Officer and will not count against the page count. The letter will not be read by the evaluators or the Source Selection Authority (SSA). Unless otherwise specified, the offeror may use presentation forms such as narrative, graphics, photographs, pictures, tables, graphs, and block diagrams to provide a concise description of the information to be conveyed. Footnotes to the text are allowed and may be used in the tables and figures.

(b) **Quantities/Numbering of Copies.** The offeror shall provide an original and additional paper copies (each identified by Copy Number) of the volumes of its proposal according to L&M-560. Submissions need not be in color. Copy Number 1 of the paper copies shall contain all required original signatures (the cover page of the proposed contract, the proposed model contract, Representations and Certifications (Section K), and GFP Written Authorization. Any extra paper copies of proposals submitted will be destroyed.

(c) **Transmittal Letter.** Include a hard copy transmittal letter with the proposal. The letter shall include a statement that the proposal will remain valid for no less than 120 calendar days from the date the proposal is due. This letter is not to exceed two pages; it will be used administratively and will not be evaluated. The transmittal letter shall also affirm the electronic media by which the offer is transmitted to the Government does not contain a "virus", a self-replicating program that has the ability to destroy data or deny services, and that the media has been checked and cleaned in its entirety with anti-virus software. The offeror shall reference the anti-virus program name and version number.

(d) **Submission of Hard Copy Proposals.** This section provides general guidance for preparing hard copy proposals as well as specific instructions on the format and content of the proposal. Non-conformance with these instructions may result in an unfavorable proposal evaluation.

(e) **Binding and Labeling.** Each volume of the paper copy proposal should be separately bound in a three-ring loose leaf binder that shall permit the volume to lie flat when open. Volume II, Mission Capability Factor, shall have each subfactor presented within a separate binder. Staples shall not be used. A cover sheet should be bound in each book, clearly marked as to volume number, title, copy number, RFP identification and the offeror's name. The same identifying data shall be placed on the spine of each binder. Tab indexing shall be used to identify sections. All unclassified document binders shall have a color other than red. Be sure to identify appropriate markings such as the legend at FAR provision 52.215-1(e), Restriction on Disclosure and Use of Data.

(f) **Page Format Restrictions and Limitations.** Page size for all proposal volumes shall be 8.5 x 11 inches, not including foldouts. Except for the reproduced sections of the solicitation document, text font shall be Times New Roman or equivalent, 12 point vertical character height, black (except hypertext links), and single spaced. Kern modification or other techniques to reduce character size or spacing are prohibited. All text within illustrations and tables shall be Arial, legible, and at least 8 point in height. Figure titles shall be at least 10 points in height. These restrictions do not apply to forms provided by the Government in this RFP to be included in the NPOESS contract (Standard Form 33, DD Form 254, DD Form 1423-1 and DD Form 1664). Viewgraphs provided in the Executive Summary, Oral Presentation, will be landscape orientation, with ½ inch margins (useable 10 x 7.5 inches) minimum font of 14 point. Text font shall be Times New Roman or equivalent, 12 point vertical height, black and single-spaced. No pen and ink changes are allowed. The page count limitation is based on the 8.5 x 11 inch paper copy with .75 inch margins on all sides. All information except for documentation number, classification markings, and page numbers must be contained within the margins. Pages shall be numbered sequentially and consecutively (i.e., 1-1, 1-2, IV-1, IV-2).

(g) **Foldouts.** Legible tables, charts, graphs and figures shall be used wherever practical to depict organizations, systems and layout, implementation schedules, plans, etc. These displays shall be uncomplicated, legible and shall not exceed 11 x 17 inches in size. Foldout pages shall fold entirely within the volume and count as two pages toward the page limitations. Foldout pages may only be used for large tables, charts, graphs, diagrams and schematics, not for pages of text. All information (except for document numbers, classification markings, and page numbers) must be contained within an image area of 9 ½ x 15 ½ inches.

(h) **Cross Referencing.** The offeror shall not submit paper copies of reference documents previously submitted to the Government. The offeror shall provide a list of all cross-referenced material. The offeror is also advised that the Government will assume that any information required by this solicitation that is not submitted in its designated proposal volume has been omitted from the proposal deliberately.

(i) **Cross Reference Matrix.** The offeror shall complete a Cross Reference Matrix in accordance with L&M-533, and shall include the Cross Reference Matrix as a separate file.

**L&M-527 — ELECTRONIC SUBMISSION OF PROPOSAL**

(a) **General.** Proposals will be read and evaluated electronically. To enable the Government to successfully view the proposals electronically, the offeror shall submit electronic files compatible with Adobe Portable Document Format (PDF) Reader 5.0, Microsoft Word 97 SR-2 (DOC), Microsoft Excel 5.0 or later (XL\*), or Microsoft PowerPoint 97 SR-2 (PPT). Adobe Acrobat Reader will be used to view PDF files. The offeror shall generate “thumbnails” within each PDF file. The offeror is encouraged to generate “bookmarks” with each PDF file as well. The offeror shall provide hypertext links in a table of contents linked to each file provided in the proposal. Use of hypertext links within the proposal is permitted. There shall be no links from any other volume into the cost volume. The Integrated Master Schedule and other network schedules shall be developed using software compatible with Microsoft Project 98. The proposal shall be formatted using the HP LaserJet 4000 printer driver to ensure pages in the hard copy match the electronic copy. The offeror shall not embed sound or video (e.g., MPEG) files into the proposal files, except in the oral presentations. Use of sound or video files within the oral presentations is acceptable. In addition the offeror's proposal shall conform to the following:

- a) Limit colors to 256 colors at 1024x768 resolution; avoid color gradients.
- b) Keep embedded graphics as simple as possible; large graphics files are discouraged.
- c) Minimize the use of scanned images.
- d) Use of zipped or self-extracting archive files (e.g., .zip or .exe files) is allowed.

(b) **Operating System.** The proposals will be accessed in a client-server environment using Microsoft Windows NT Advanced Server.

(c) **Proposal Test Period.** To ensure offeror proposals are compatible with the Government's hardware configuration, the offeror may personally deliver a test CD-ROM containing sample files to the IPO SSF address in the source selection facility, prior to the due date for past performance information at a time and date agreed upon by the contracting officer. The Government will test the CD-ROM in the offeror's presence to determine whether the files are readable and the hypertext links properly connect the linked documents. This test is offered for the offeror's benefit. The offeror remains solely responsible for ensuring its proposal can be accessed as required in the source selection evaluation environment.

(d) **Format and Structure.** Each CD-ROM shall include proposal files as indicated below. Each directory shall contain a cover page and a table of contents for that directory. Additionally, the offeror shall provide a glossary of all acronyms used, with an explanation of each and a list of technical reference material, if applicable, in File Directory 1 (DIR\_1).

(1) **Root Directory.** Provide three files in the root directory of the CD-ROM. The first is a PDF file (TBLCONT.PDF) that serves as a table of contents for the entire proposal. The offeror shall hypertext link each table of contents entry to the appropriate file on the CD-ROM. The second file (PROPINFO.PDF) shall contain information to assist the Government evaluators in navigating through the proposal files. The third file is a “tab-delimited ASCII file” (KTRINFO.TXT) containing the information as shown in the table below entitled “Root Directory Contents” in exact order with a tab between each entry.

FILE NAMES	ROOT DIRECTORY CONTENTS	SECTION L&M REF
TBLCONT.PDF	Table of Contents for Entire Proposal	517
PROPINFO.PDF	Proposal Information	517
KTRINFO.TXT	offeror Information Containing:	517
	Name of offeror	XYZ Inc
	Name of Official Point of contact (POC)	Ms. Jane Smith
	Title of POC	President
	POC Phone Number	310-555-1234
	E-Mail Address	contractor.com
	Address Line 1	123 West St
	Address Line 2	Suite 500
	Address Line 3	Mail Stop 422
	Address Line 4	Blank
	City	Any town
	State	Any state
	Zip Code	11111-1111
	Title of Proposal	NPOESS EMD & Production Phase
	Classification of Proposal	Unclassified

(2) **PROPOSAL ORGANIZATION.** To aid in the evaluation of volumes, all proposals shall follow the same general format. Proposal volumes and page limits are identified in the tables below.

(3) **FILE DIRECTORY 1 - PROPOSAL INFORMATION.** This directory DIR\_1 shall include the following files as named. Specific instructions for these files are in the corresponding Sec. L&M reference.

FILE NAMES	DIRECTORY 1 CONTENTS	SECTION L&M REF
DIR1CVR.PDF	Cover page for proposal	517 (a)
TBLCONT1.PDF	Table of Contents for Directory 1	517 (d)
REFMAT.PDF	List of Technical Reference Material (if applicable)	517 (d)
ACRONYM.PDF	List of acronyms for entire proposal	517 (d)
Volume I – Executive Summary		
EXECSUM.PPT	Executive Summary	561
Volume II – Mission Capability		
MC1.PDF	Section 1 – System Performance	562-1
MC2.PDF	Section 2 – Segment Design	562-2
MC3.PDF	Section 3 – Systems Engineering and Planning	562-4
MC4.PDF	Section 4 – Management and Organization	562-5
Appendices		
Volume II - Mission Capability		
FILE NAMES	CONTENT	SEC L&M REF
IMS.MPP	Appendix A – IMS	535& 562-4
IMP.PDF	Appendix B – IMP	535 & 562-4
XREF.PDF	Appendix C – Cross-Reference Matrix	533
Volume III – Past Performance		
PASTPERF.PDF	Past Performance	563
Volume IV - Cost/Price Proposal		
COST.PDF	Section 1 – General Instructions	564
COSTS.XLS	Section 2 – Cost Information	564
OTHER.PDF	Section 3 – Other Information	564
V3APPA.XLS	Appendix A – Basis of Estimate	564
Volume V – Program Risk Mitigation Oral Presentations		
OPRESNET.PPT	Oral Presentation Charts	565

**(4) FILE DIRECTORY 2 - MODEL CONTRACT, ATTACHMENTS & SUPPORTING DOCUMENTATION.**

This directory DIR\_2 shall include the listed files. Specific instructions for these files can be found in the referenced RFP paragraph. No signatures are required in the electronic files.

FILE NAMES	DIRECTORY 2 (DIR_2) CONTENTS	SECTION L&M REF
DIR2CVR.PDF	Cover page for model contract	
TBLCONT2.PDF	Table of Contents for Directory 2	
Volume VI - Model Contract		
SF33.DOC	Solicitation Offer and Award (Section A)	566
MODEL.DOC	Model Contract (Sections B - J)	566
EXHIBITA.DOC	Exhibit A - Contract Data Requirements List (CDRL)	566
ATCH1.DOC	Atch 1 - Integrated Master Plan (IMP)*	566
ATCH2.DOC	Atch 2 - NPOESS System Specification	566
ATCH3.DOC	Atch 3 -Contract Work Breakdown Structure (CWBS)	566
ATCH4.DOC	Atch 4 - Award Fee Plan	566
ATCH5.DOC	Atch 5 - Government Furnished Property (GFP)	566
ATCH6.DOC	Atch 6 - Technical Data Restrictions	566
ATCH7.DOC	Atch 7 - SB/SDB Subcontracting Plan	566
ATCH8.DOC	Atch 8 - Contract Sec Classification Spec (DD Form 254)	566
Additional Documentation as Appendices to Volume VI		
APPENA.PDF	Appendix A – Representations And Certifications	566
APPENB.PDF	Appendix B – Exceptions	566
APPENC.PDF	Appendix C – Authorized Representative	566
APPEND.PDF	Appendix D - Location Information	566
APPENE.PDF	Appendix E - GFP Written Authorization	566
APPENF.PDF	Appendix F – Instrument Subcontract Arrangements	566

**L&M-530 — PREVIOUSLY-SUBMITTED DATA AND PDR DATA**

(a) The offeror's electronic submission may include one or more CD-ROMs of previously-submitted data and PDR data. Previously-submitted data includes any document, report, study, drawing, memoranda or other item produced during the NPOESS Program Definition and Risk Reduction program that was delivered to the IPO on or before the common cut-off date for submission of proposals. PDR data includes any deliverable for the offeror's Preliminary Design Review (PDR) which, in the offeror's opinion, affects the evaluation criteria of this source selection. The offeror is required to link from its Mission Capability, Past Performance, or Cost Volumes to the relevant sections of documents contained in the previously-submitted data and PDR data CD-ROM(s)—links shall not be to general areas or cover pages of documents but rather to the specific information substantiating specific assertions made in the Mission Capability, Past Performance, or Cost Volumes. The sole purpose of this submission is to provide substantiation and reinforcement of assertions made in the offeror's Mission Capability, Past Performance, or Cost Volumes, and only those documents which serve this purpose may be included.

(b). There are no page limits or formatting requirements for this submission.

**L&M-533 — CROSS-REFERENCE MATRIX**

The Management Cross-Reference Matrix and the TRD/Spec Cross-Reference Matrix are intended to facilitate proposal preparation and evaluation. In the event any conflict is found to exist between either matrix and any other element of the solicitation, the other element of the solicitation shall have precedence. The offeror is responsible for completing each matrix and including them with the technical proposal volume. The Government will use the completed matrix to verify that the submitted specifications address all of the requirements of the TRD (Table 533-2) and to evaluate the adequacy of the proposed Contract WBS and IMP (Table 533-1).

<b>Table 533-1 — Management Cross-Reference Matrix (sample)</b>					
<b>SOO</b>	<b>RFP L/M</b>	<b>Technical Proposal</b>	<b>WBS</b>	<b>CWBS</b>	<b>IMP</b>

<b>Table 533-2 — TRD/Spec Cross -Reference Matrix (sample)</b>		
<b>TRD</b>	<b>System Spec</b>	<b>Segment Spec</b>

**L&M-535 — INTEGRATED MANAGEMENT FRAMEWORK (IMF)**

(a) Introduction. The Government is implementing the Integrated Management Framework (IMF) approach for managing the NPOESS EMD program. The IMF approach provides the offeror a product orientation to the management of his effort while providing the Government greater visibility into the proposed efforts. To achieve the product orientation of the IMF philosophy, the offeror structures an integrated management system to logically flow down requirements through broad-level tasking within an event driven Integrated Master Plan (IMP). Two of the major features of the IMF approach are reviewed below.

(1) The first major feature is an approach for planning the contract effort and preparing the contract documentation, see Table 535-1. The Government's RFP provides the offeror with the elements shown in the left column of the table; i.e., Model Contract (Sections A - J plus attachments), Section L&M, Technical Requirements Document (TRD), Statement of Objectives (SOO), Work Breakdown Structure (WBS), and Contract Data Requirements List (CDRL), in accordance with the detailed proposal preparation instructions found in this RFP. The definitive contract contains the elements shown in the right hand column of the figure. These offeror-generated documents will be used in the evaluation of the EMD Technical and Management Approaches.

(B) The IMP expands on the CWBS and its dictionary, and establishes, by tasks (replaces the Statement of Work) and key events with selected narratives, the significant accomplishments and corresponding accomplishment criteria for both the products and processes necessary to accomplish the EMD effort. The IMS corresponds to the IMP and shows the schedule necessary to achieve each significant accomplishment. The Government and the winning offeror will use the IMP and IMS as the primary tool to track the program's technical and schedule progress. The IMP and IMS will be used in evaluating the other portions of the proposal. The proposed CWBS, CDRL, and IMP become part of the contract.

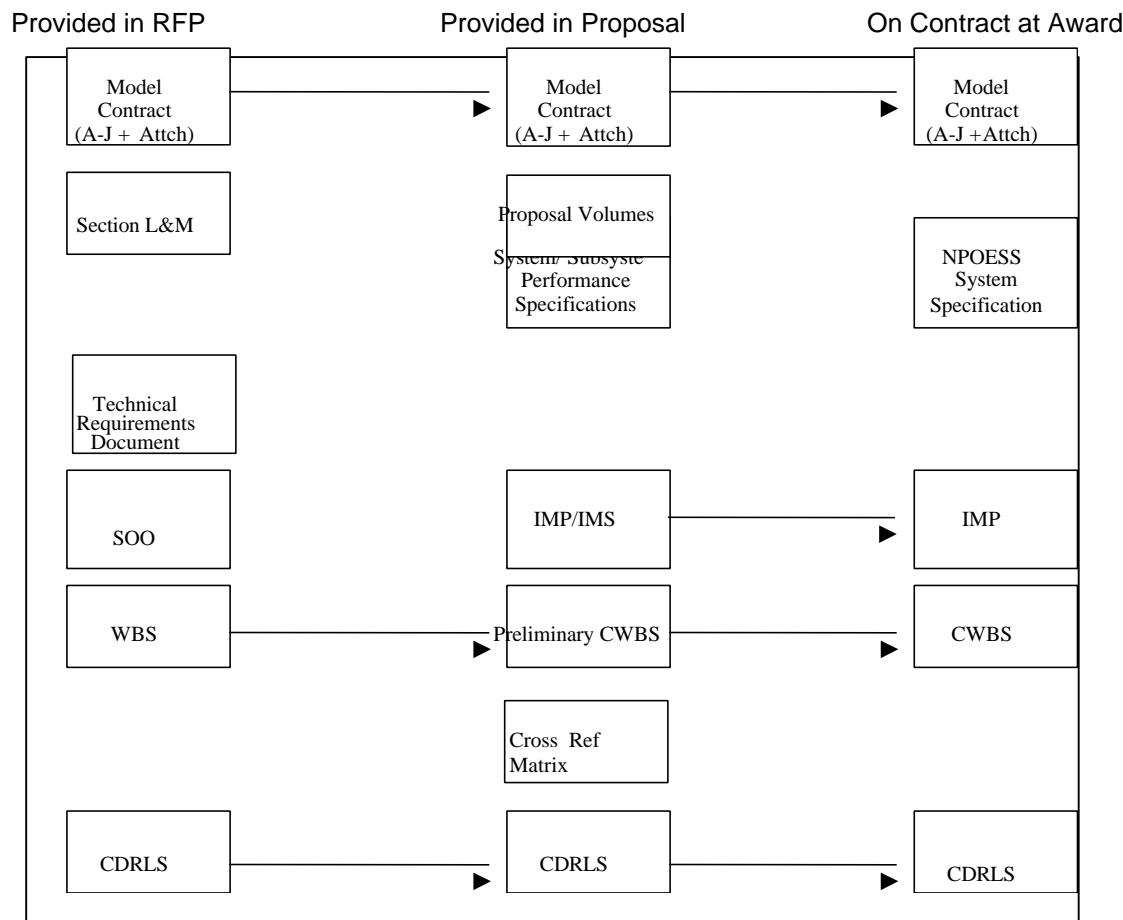


Table 535-1 Acquisition Approach

(2) The second major feature of the IMF approach is the use of Integrated Product Teams (IPTs) in implementing the event-driven plan described above. This approach involves a teaming of Government and offeror functional disciplines to integrate and concurrently apply all necessary processes to produce effective and efficient products that satisfy mission requirements. Under the IMF approach, the program is organized into IPTs that are both empowered and responsible for the performance of their specific product. Each IPT is given the authority to manage their product and allocate resources within the team. The IPT members represent all functions that have a role in the performance of the product, e.g., engineering, manufacturing, contracting, inspection, and logistics. IPT members work together to ensure that an efficient and effective product, which satisfies the requirements, is delivered. The term "product" under IMF also includes activities and processes as well as a specific product. The offeror organizes IPTs for the proposed EMD "products."

(b) Contractual Relationship Between The IMP And IMS.

(1) The IMP describes in detail how the work will be accomplished. The task section within the IMP (will take the place of a separate SOW) defines in detail what work is to be accomplished under the EMD and Production phases. The approved IMP is contractually binding and becomes Attachment 1 to the awarded contract. After contract award, the IMP cannot be changed except through normal contract change actions.

(2) In contrast, the IMS is a contract deliverable item under the CDRL and is to be updated "as required" (to maintain schedule flexibility) in accordance with the requirements of the offeror's CDRL.

(c) Integrated Master Plan (IMP).

(1) A Work Breakdown Structure (WBS) and associated dictionary have been provided in Annex A. The proposed CWBS shall be delivered as part of Volume V of the proposal. All tasks in the IMP shall be correlated to the CWBS proposed by the offeror. There should be a correlation between the CWBS, IMP and the IPTs proposed for the EMD Development. The IMP and IMS shall use the CWBS numbering system to facilitate contract requirements traceability.

(2) The IMP shall clearly and concisely state the offeror's plans for how system engineering efforts will be conducted, how program tasks will be controlled and who, organizationally, will accomplish each task. It should identify key system engineering tasks, their interrelationships with program milestones, and the specific criteria that will be used to track and measure successful task completion. The IMP should provide top-to-bottom traceability from the SOO and TRD to Level 3 of the CWBS, except for sensors which shall be traced to Level 4. The IMP shall describe: a) key tasks, events and accomplishments to be met by the offeror under the contract; b) the associated criteria for the events and accomplishments; and c) the processes to be used in performing and reporting the tasks required by the contract. The IMP also groups the contract requirements so that designated IPTs may work these requirements. The offeror shall prepare the IMP in a format, which clearly and succinctly conveys to the Government the information requested above. Offeror format is encouraged for this document.

(A) Task: A Task describes a work effort (to be performed by the offeror) which singularly, or in combination with other Tasks, satisfies the EMD SOO and TRD. (The task section contains summary level tasks that read like a Statement of Work and replaces the effort descriptions usually contained in a Statement of Work). The IMP Tasks section shall contain references to the data items. Block 5 on the DD Form 1423-1, Contract Reference, shall contain the appropriate IMP reference.

(B) Event: An Event is defined to be the initiation/conclusion of an interval of major program activity. It shall represent a decision point related to the system maturity with continued system development. Events identified may be in the format of entry and exit events (e.g. Initiate CDR and Complete CDR) or use entry and exit criteria for each event. Other examples are: a) Test Readiness Review, b) Functional Configuration Audit, or c) Physical Configuration Audit. The Government's suggested events for the Engineering Manufacturing and Development phase are quarterly Program Management Reviews (PMR), Integrated Baseline Review (IBR), a Delta System Preliminary Design Review (PDR), a tailored System Critical Design Review (CDR), NPP Sensor Deliveries, NPP IDPS Delivery, NPP C3S Delivery, Test Readiness Reviews (TRR), a Functional Configuration Audit (FCA), a Physical Configuration Audit (PCA), a Test Plans/Procedures Review (TPP), NPOESS Space Segment Deliveries, NPOESS IDPS Delivery, NPOESS C3S Delivery, NPOESS Field Terminal Segment Delivery, a Pre-shipment Review, and satellite unit deliveries (launch and on-orbit checkout). Quarterly Program Management Reviews, consisting of technical and management aspects, are held to keep the Government informed and facilitate timely problem resolution. The Delta PDR shall be conducted to bring all segments to PDR level, if not all segments had achieved that level of design maturity at the PDRR PDR. The tailored CDR shall be conducted when the detail design is essentially complete to determine that the detail design satisfies the performance and engineering specialty requirements of the development specification. The NPP Sensor Deliveries are required to support the NPP. A TRR is conducted prior to each major test to determine that test procedures are complete and to assure that the offeror is prepared for formal testing. The FCA validates that the development of the system has been completed satisfactorily and that the satellite has achieved the performance and functional characteristics specified in the functional or allocated configuration identification. The PCA is a hardware review and technical examination to verify that the "As Built" system conforms to the technical documentation which defines the satellite. The offeror is encouraged to identify additional Key Events that best reflect the proposed program approach. For each IMP event, there shall be one or more entry or exit significant accomplishments (either entry or exit).

(C) Significant Accomplishment: A Significant Accomplishment is a specified result substantiating an event that indicates the level of progress or maturity directly related to each product/process. Accomplishment shall be measurable. Significant accomplishments are interim or final critical efforts that must be completed prior to entering or exiting an event. Entry accomplishments reflect what must be

complete to initiate an event. Exit accomplishments reflect what must be done in order for the event to be successfully closed and that the EMD project is ready for the next event. For each significant accomplishment, there shall be one or more accomplishment criteria. Some examples of significant accomplishments which support a system Critical Design Review Event might be: a) Detailed design completed, b) Design compatibility check completed, c) risk assessment completed, d) producibility analysis completed, e) preliminary hardware product specification review completed. Significant accomplishments include—

- (i) A desired result at a specified event which indicates a level of design maturity, (or progress, directly related to each product and process),
- (ii) A discrete step in a process,
- (iii) A description of interrelationship between different functional disciplines applied to the program (e.g., Maintainability, Manufacturing, and Reliability - the significant accomplishments of each related to Events by IMP Section).

(D) Accomplishment Criteria: A definitive measure or useful indicator substantiating the maturity level of an associated Significant Accomplishment. It is the completion of specified work that ensures closure of a specified Significant Accomplishment. Criteria shall be measurable (e.g., "Test plan complete and accepted by the spacecraft IPT" is a measurable criteria, whereas "Test plan 85% complete" is difficult to assess, if at all). Examples of accomplishment criteria are—

- (i) Architectural trade studies satisfy stated objectives
- (ii) Allocated system requirements specified in segment performance requirement documents
- (iii) Draft Interface Control Documents completed and time critical interfaces identified
- (iv) Design risk assessment updated and risk reduction options

(E) Narratives: A collection of concise summaries providing visibility into the offeror's key functional and management processes and procedures, how they relate to the integrated product development process, and an overview of the efforts required to implement them. The narratives shall address only the key elements of implementing or developing a process/procedure (i.e. what the process/procedure will be and how it will be implemented and tracked). The narratives facilitate offeror and Government understanding of and commitment to critical processes/procedures prior to contract award. The narratives shall complement the respective significant accomplishment and accomplishment criteria sections by indicating where in the particular process the criteria apply. Each narrative subject area shall include a brief objective statement of desired results traceable to the SOO, the processes applicable to that objective, a listing of the proposed existing Government, industry, national and international specifications and standards to be used to achieve the objective. The offeror shall clearly state which of these documents are compliance and which are reference and which of these will be tailored. Compliance documents are contractually binding, while reference documents are for guidance only and are not contractually binding. However, company practices or procedures may only be listed as reference documents. The narratives shall be consistent with applicable technical and management approaches described in the Technical and Management Volume of the proposal. The narrative section is not the forum for providing supporting information or rationale (i.e., why a particular approach has been taken). The minimum list of essential processes for which the Government requires narratives is listed in Table 535-2. However, the offeror may discuss any additional areas that they feels are either critical or of a high risk to his approach.

(d) Integrated Master Schedule (IMS).

(1) In support of the IMP, the IMS provides a schedule for all the events, significant accomplishments, and accomplishment criteria described in the IMP. The IMS also outlines the detailed tasks and the corresponding calendar schedules (dates) necessary to show how each significant accomplishment will be achieved. All tasks outlined in the IMS should be related to specific IMP accomplishments.

(2) The IMP and the IMS employ a single numbering system based on the Contract Work Breakdown Structure (CWBS), which is also the cornerstone of the Earned Value Management Systems of both the Government and its contractors. The single numbering system provides traceability between the Significant Accomplishments and Accomplishment Criteria (IMP) and the Detailed Tasks (IMS), and through the NPOESS System Specification to the IMP Tasks.

(3) The offeror shall provide a top level IMS as part of its proposal. The more detailed levels of the IMS, as well as updates, shall be maintained and made available to the Government during contract performance upon request. The IMS is intended as a tool for day to day tracking of the program/project that rolls up to increasingly higher summary levels. The IMS is an integrated and networked multi-layered schedule of program/project tasks. The IMS identifies all IMP tasks, events, accomplishment, and criteria and the expected dates of each. For all significant activities, events, and milestones provide a task number, task name, duration, predecessor tasks, start date and finish date. Illustrate the proper interdependencies of all activities, events and milestones. Provide the offeror's assumptions used in estimating the task duration shown in the schedule (e.g., historical data, experience on similar efforts, vendor schedules, number of work days per week, number of shifts, company holidays, etc.). Define the program's critical path for the period of performance of this contract, and provide supporting narrative that explains the critical path and any unusual program aspects. Any anticipated Government support must be identified.

**Table 535-2 — Required IMP Narratives**

<p><b>Systems Engineering.</b> Define the processes to be used for conducting requirements analyses, performing functional analyses, allocating performance requirements, synthesizing design solutions, and performing systems analysis and trade-off studies. Describe the methodologies that will be used in measuring progress, evaluating alternatives, selecting preferred alternatives, and documenting data and decisions. Include the following as part of the systems engineering processes:</p> <p><b>Software Systems Engineering.</b> Describe the role of software in NPOESS design, development, test, operations, and maintenance and your commitment to following the Software Development Plan.</p> <p><b>Environmental Compliance.</b> Define the processes to be used for integrating environmental protection considerations into the overall NPOESS system architecture and engineering process</p> <p><b>System Safety and Health.</b> Define the processes to be used to develop a system-wide safety and health program that will ensure that safety and health engineering requirements are identified and factored into the design of the NPOESS.</p> <p><b>Hazardous Materials Management.</b> Define the processes to be used for identifying, justifying, minimizing, eliminating, and controlling hazardous materials that will be used during manufacture, processing, maintenance, repair, and disposal of systems components and associated support items.</p> <p><b>Design Considerations.</b> Define the processes to be used for developing design criteria and special test requirements that will ensure the integrity of the structure, moving mechanical assemblies, and propulsion systems.</p> <p><b>Electromagnetic Compatibility.</b> Define the processes to be used in conducting an overall EMD electromagnetic effects program.</p> <p><b>Contamination.</b> Define the processes that will be used in conducting a contamination control program to deal with environmental control of clean rooms, work stations, cleanliness levels and general contamination control during all phases of the hardware's lifetime from initial build, through in-orbit end of life.</p> <p><b>Quality Assurance.</b> Define the processes to be used in conducting the quality assurance program for system hardware and software during design, development, manufacturing, (EMD and Production phases) and test.</p> <p><b>Data Management.</b> Define the processes to be used by which all program data (both technical and cost data) will be developed, maintained, and made available to the Government electronically.</p> <p><b>Integrated Logistics Support (ILS).</b> Describe the logistics support analysis approach and how that process will be used in developing supportable systems.</p> <p><b>Program Protection.</b> Define the processes, via a Security Implementation Plan, to be used for safeguarding critical aspects of the program identified in the NPOESS Program Protection Plan (PPP).</p>
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**L&M-540 — PROPOSAL ASSUMPTIONS**

The assumptions provided in Table 540-1 are to allow the offerors to prepare their proposals on a common basis. The offeror's IMP, IMS, and Cost proposal should include these assumptions. However, the Government does not warrant that the assumptions will translate to actuality during the life of the EMD/Production contract.

<b>Table 540-1 — Proposal Assumptions</b>	
MAY 2004	OMPS instrument is delivered for flight-of-opportunity
SEP 2004	Government-provided facility in the Washington area for MMC is available for installation of C3S equipment; Government-provided facility in the Washington area for IDPS is available for installation of the IPDS equipment
OCT 2004	GSE and software for the NPP VIIRS and CrIS sensors are delivered to NPP satellite contractor; and Test-validated thermal math models and finite element models of the VIIRS and CrIS instruments are delivered to NPP satellite contractor
NOV 2004	Support for VIIRS and CrIS instrument integration and test with the NPP spacecraft, including continuous VIIRS and CrIS operation and performance evaluation, begins and extends through MAR 2005
DEC 2004	CrIS and VIIRS flight-qualified instruments are delivered to NPP satellite contractor; C3S System Installation and Site Acceptance is complete; Support to NPP Mission System Integration and Test begins; IDPS Hardware and Software infrastructure installation and check-out is complete at a Washington area facility; Complete acceptance test with representative system resource utilization by demonstrating RDR & EDR processing functionality, not including EDR attribute requirement satisfaction; and Support to NPP mission system integration and test begins
MAR 2005	IDPS infrastructure functionality is demonstrated at second central (AFWA)
MAY 2005	C3S NPP Mission System Integration and Test are complete
JUN 2005	Complete NPP Mission System Integration and Test for RDR delivery to one Central (Washington area) is achieved
JUL 2005	Complete NPP Mission System Integration and Test for RDR delivery to the second Central (AFWA) is achieved;
SEP 2005	Complete NPP Mission System Integration and Test for EDR (incl. attribute requirement satisfaction) is delivered at one Central (Washington area)
OCT 2005	Complete NPP Mission System Integration and Test for EDR (incl. attribute requirement satisfaction) is delivered at second Central (AFWA); and The contractor provides the specification for the hardware and storage requirements needed to run the IDPS LRD and HRD field terminal software
DEC 2005	NPP launches
MAR 2008	A satellite is available for call-up in a 1330-orbit configuration as back-up to POES N'; and IDPS and C3S functionality is available to support a1330-orbit at all Centrals and two MMCs
FEB 2009	IDPS and C3S functionality is available to support all orbits at all Centrals and two MMCs; and A satellite is available for call-up in a 2130-orbit configuration to back-up DMSP F-20 (unless previously called-up to back-up N' in a 1330 orbit)
APR 2009	Satellite C1 launches in a 2130 orbit; and Satellite C2 is available for call-up to back-up C1
JUN 2011	Satellite C2 launches in a 1330 orbit; and Satellite C3 is available for call-up to back-up C2
SEP 2011	IOC is declared
APR 2013	Satellite C3 launches in a 1730 orbit; and Satellite C4 is available for call-up to back-up C3
DEC 2018	The NPOESS Program's 10-year life ends

**L&M-560 — PROPOSAL SUBMISSION REQUIREMENTS SUMMARY**

The due dates and page limits of the offeror's proposal are shown in Table 560-1. The offeror must consult the reference citation for specifics on proposal volume content and arrangement, including section page limits.

Table 560-1 -- PROPOSAL SUBMISSION REQUIREMENTS SUMMARY				
<u>Due Date</u>	<u>Title</u>	<u># Of Copies</u>	<u>Page Limit</u>	<u>Reference</u>
(*)	Test of electronic media on CD-ROMs	n/a	n/a	L&M-527
01 MAR 2002	Volume 3 – Past Performance (paper)	5	50	L&M-563
15 MAR 2002	Common cut-off date for submission of proposals—			
	Vol. 1 – Executive Summary (paper)	5	18	L&M-561
	Vol. 2 – Mission Capability (paper)		200**	L&M-562
	Vol. 2a – System Performance	10		
	Vol. 2b – Segment Design	10		
	Vol. 2c – SEIT and Planning	10		
	Vol. 2d - Management and Organization	10		
	Vol. 4 – Cost (paper)	2	n/a	L&M-564
	Vol. 5 – Program Risk Mitigation Oral Presentation (paper)	5	n/a	L&M-565
	Vol. 6 – Model Contract and Business Arrangements (paper)	2	n/a	L&M-566
	Proposal CD-ROM(s) – Volumes 1, 2, 3, 4, 5, and 6	2	n/a	L&M-527
	Previously-Submitted Data and PDR Data CD-ROM(s)	2	n/a	L&M-530
* at the offeror's convenience but at least two weeks before proposal submission.				
** four sub-volumes are to total 200 pages combined, but this limit does not include tables of contents, cross reference matrices, or acronym lists—this also does not include the IMS (no page limit) or the IMP (75 pages as described in L&M-562).				

**L&M-561 — PROPOSAL VOLUME 1 INSTRUCTIONS — EXECUTIVE SUMMARY**

(a) **Section 1—Executive Summary.** A brief and integrated overview of the offeror's total proposal describing how the objectives of the acquisition will be met, with highlights of the proposed system concept. This section should be in landscape format and is limited to 10 pages.

(b) **Section 2—Outcomes.** A brief description of the outcomes or objectives the Government should expect from CLINs 0100 and 0200 (each discussed separately), an optional replenishment satellite CLIN, and storage and launch support CLIN. The CLIN outcomes and objectives description should include short narratives on the outcomes and objectives of a few key milestones to be achieved in that CLIN. This section should be in landscape format and is limited to 4 pages

(c) **Section 3—Subcontracts.** A summary outline of how the effort required by the solicitation will be assigned for performance within the offeror's corporate entity and among proposed subcontractors. This section should be in landscape format and is limited to 4 pages. Subcontractor information should also be included where appropriate in the other volumes of the proposal.

**L&M-562 — PROPOSAL VOLUME 2 INSTRUCTIONS — MISSION CAPABILITY**

The offeror will submit a paper and an electronic version of this Volume, but the two must be identical in every respect except that the electronic version may include links to electronic Previously-Submitted Data and to the electronic Program Risk Mitigation Oral Presentation Volume. Liberal use of these links are encouraged; however, the offeror is cautioned that links from this Volume 2 to the Previously-Submitted Data and Program Risk Mitigation Oral Presentation files are allowed only for substantiation and reinforcement of the assertions made within this Volume 2. Accordingly, Volume 2 must include sufficient information and detail to allow Government evaluators to perform an assessment without reliance on the linked material.

This provision is divided into four sections, as follows—

- Section 1 – Subfactor 1 – System Performance;
- Section 2 – Subfactor 2 – Segment Design;
- Section 3 – Subfactor 3 – Systems Engineering, Integration & Test, (SEIT) and Planning; and
- Section 4 – Subfactor 4 – Management and Organization.

The entirety of Volume 2 is limited to 200 pages, except that the IMP and IMS required by Subfactor 4 may be submitted as annexes to Volume 2 and are not included in the 200-page limit. The IMS is not page limited. The IMP is limited to 75 pages (15 for general information, 20 pages for the IMP tasks, and 40 pages for the narratives).

**L&M-562 — PROPOSAL VOLUME 2 INSTRUCTIONS — MISSION CAPABILITY (cont'd)****Section 1 – Subfactor 1 – System Performance.**

This section outlines the overall performance of the proposed NPOESS. The focus of the section is the configuration of the proposed system, its concept of operations, and its system-level performance compared to the TRD. This section outlines the information required to make an overall system performance assessment. To facilitate evaluation of this subfactor, it is subdivided into three parts—

- 1.1 System Compliance (see Table 562-1.1);
- 1.2 System Description (see Table 562-1.2); and
- 1.3 Calibration, Validation, and Verification Approach (see Table 562-1.3).

**Table 562-1.1 – System Compliance**

<p><b>1.1.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>Provide its performance baseline in table format showing all performance characteristics, including EDRs and each EDR attribute, described in its System Specification as it relates to the TRD, including a description of the benefits and impacts of those parameters that exceed or do not meet threshold requirements and the rationale for not meeting the threshold. NOTE: TRD performance requirements fulfilled by the Aerosol Polarimeter Sensor (APS) should not be included in this description nor the NPOESS System Specification.</p>	<p><b>1.1.2 EVALUATION CRITERIA.</b></p> <p>The proposal and System Specification will be evaluated against the TRD and the NPOESS Program Prioritizations described in L&amp;M-520 to ensure the offeror's overall proposed system provides a sound and satisfactory solution to the NPOESS program requirements.</p>
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**Table 562-1.2 – System Description**

<p><b>1.2.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Provide an overall system description/CONOPS for all the segments that are addressed in the subsequent sections.</p> <p>(b) Provide a data flow diagram that depicts the data flow from the sensor measurement to the actual production of user environmental data.</p> <p>(c) Describe the trades conducted and how they resulted in best value to the Government.</p>	<p><b>1.2.2 EVALUATION CRITERIA.</b></p> <p>(a) The System CONOPS will be evaluated for compliance with the offeror's system specification.</p> <p>(b) The data flow diagram will be evaluated to ensure that it addresses the entire system data flow and processing for NPOESS and NPP.</p> <p>(c) The proposal will be evaluated against the trade-off process referenced in L&amp;M-520 (NPOESS System Prioritizations).</p>
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<b>Table 562-1.3 – Calibration, Validation, and Verification Approach</b>	
<p><b>1.3.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Describe the end-to-end system-level plan in general for validating EDR and RDR products, including the pre-launch instrument characterization and EDR product simulation verification plans, the post-launch EDR and RDR product validation plans, and its long-term EDR and sensor calibration and validation monitoring and trending plans.</p> <p>(b) Describe the analysis, tools, sensor engineering development units, IWPTB, and external data and resources used throughout the EDR, SDR, TDR, and RDR product development and verification process, including a description of the verification of the offeror's modeling and simulation tools.</p> <p>(c) Show how its Cal/Val plan is compatible with the concepts in the Government's NPP Calibration and Product Validation Plan and specify the required Government support to its calibration, validation, and verification program.</p> <p>(d) Describe how will incorporate, track, and use Government-provided truth data as described in the Government draft NPP and NPOESS EDR and RDR Product Calibration and Validation Plans to support its EDR product verification effort.</p> <p>(e) As examples of its Cal/Val program, provide draft end-to-end Cal/Val descriptions for the CrIS-ATMS and VIIRS Sensors with sufficient detail to demonstrate knowledge of Cal/Val techniques.</p>	<p><b>1.3.2 EVALUATION CRITERIA.</b></p> <p>(a) The general Cal/Val approach will be evaluated to ensure that it is reasonable and executable.</p> <p>(b) The system tools and their utilization will be evaluated to ensure that the overall Cal/Val concept is comprehensive and will demonstrate EDR product performance.</p> <p>(c) The level and type of Government support/interaction will be evaluated for soundness of approach.</p> <p>(d) The use of Government-provided truth data within the EDR product verification approach will be evaluated for efficiency of calibration and validation efforts and synergy between the EDR product verification plan and Government verification efforts.</p> <p>(e) The Cal/Val Plans will be evaluated for completeness and understanding of the CrIS-ATMS and VIIRS calibration requirements.</p>

**L&M-562 — PROPOSAL VOLUME 2 INSTRUCTIONS — MISSION CAPABILITY (cont'd)****Section 2 – Subfactor 2 – Segment Design.**

The focus of the section is the allocation of system level requirements to each of the segments, the ability of segment designs to achieve those requirements, trades conducted and rationale for deviations from Government procured sensor baselines and design provisions for flexibility and growth. This section outlines the information required to make an integrated assessment of the ability of the offeror's design to achieve predicted performance. To facilitate evaluation of this subfactor, it is subdivided into four parts—

- 2.1 Space and Launch Support Segments (see Table 562-2.1);
- 2.2 Command, Control, and Communications Segment (C3S) (see Table 562-2.2);
- 2.3 Interface Data Processing Segment (IDPS) (see Table 562-2.3); and
- 2.4 Field Terminal Segment (see Table 562-2.4).

**Table 562-2.1 – Space and Launch Support Segments**

2.1.1 INSTRUCTIONS. The offeror shall—	2.1.2 EVALUATION CRITERIA.
<p>(a) Provide the allocation of the system specification and GIID requirements to the space segment.</p> <p>(b) Describe the satellite design and how it will meet the requirements of the Space Segment Specification, including how the satellite design will facilitate data collection, generation of raw sensor data, and data flow.</p> <p>(c) Describe any “deltas” in sensor design from the ATMS, CMIS, CrIS, GPSOS, OMPS, and VIIRS instrument baselines, and explain how the offeror's design is better or worse than the established baseline (note: the offeror need not re-substantiate established baselines for these sensors).</p> <p>(d) Discuss how design flexibility will accommodate segment changes/updates.</p> <p>(e) Describe the benefit of any sensor design changes recommended by the offeror to, and implemented by, the Government in the PDRR phase.</p> <p>(f) Describe the Space Segment software design including (i) the allocation of Space Segment requirements to software; (ii) how the design will meet those requirements; (iii) the use of COTS and Reusable Code and their integration into the Segment; (iv) how sensor software will integrate with the satellite software; and (v) how the satellite and sensor software will be maintained after launch.</p> <p>(g) Describe any non-standard launch support requirements, any deviation from the Standard Interface Specification (SIS), and how the offeror will ensure that the requirements are supported (detailed substantiation will be required if non-standard services are required to a large degree).</p>	<p>(a) The proposal will be evaluated for accurate and complete flow down of the system requirements to the Space Segment specification.</p> <p>(b) The satellite design will be evaluated against the parameters of the space segment specification to verify that the SS design can deliver the required performance (the Government's evaluation may include using simulation, inspection, and/or analysis).</p> <p>(c) Parameters varying from ATMS, CMIS, CrIS, GPSOS, OMPS, and VIIRS instrument baselines will be evaluated against the requirements of the Space Segment specification, including an evaluation of the technical rationale and design benefit for all attributes that vary from the established baselines.</p> <p>(d) The design will be evaluated for flexibility to accommodate (i) technology assessment, development, and insertion; (ii) component assessment and selection; (iii) performance enhancements; (iv) requirement changes; and (v) future risk reduction plans for the space segment.</p> <p>(e) The Government will evaluate the benefit of any sensor design changes recommended by the offeror to, and implemented by, the Government in the PDRR phase, for contributions to overall system best value.</p> <p>(f) The Space Segment software design will be evaluated to ensure completeness, feasibility, performance, robustness, and maintainability.</p> <p>(g) The launch support requirements will be evaluated for completeness, conformance to the SIS, and soundness of approach.</p>

<b>Table 562-2.2 – Command, Control, and Communications Segment (C3S)</b>	
<p><b>2.2.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Provide the allocation of the system specification requirements to the C3S specification.</p> <p>(b) Describe how the C3S design meets the requirements of the C3S specification, including how the C3S design will facilitate data collection and data delivery.</p> <p>(c) Describe the NPP C3S system design and the approach to transition from the NPP C3S architecture to the NPOESS architecture.</p> <p>(d) Describe the benefit of any C3S design changes recommended by the offeror to, and implemented by, the Government in the PDRR phase.</p> <p>(e) Describe the flexibility of its C3S architecture to accommodate additional remote sensing missions, in addition to NPOESS and NPP (e.g., what generic changes would be required to command and recover data from a TOPEX and a EUMETSAT satellite?).</p> <p>(f) Describe the C3S software design, including (i) the allocation of C3S requirements to software; (ii) how the design will meet those requirements; and (iii) the use of COTS and its integration into the C3S.</p>	<p><b>2.2.2 EVALUATION CRITERIA.</b></p> <p>(a) The proposal will be evaluated for accurate and complete flow down of the system requirements to the C3S specification.</p> <p>(b) The C3S design will be evaluated against the parameters of the C3S specification to verify that the C3S design can deliver the required performance (the Government's evaluation may include using simulation, inspection, and/or analysis).</p> <p>(c) The NPP C3S design will be evaluated for completeness, the ability to execute the program to meet NPP need dates, and optimization of the transition to NPOESS.</p> <p>(d) The Government will evaluate the benefit of any C3S design changes recommended by the offeror to, and implemented by, the Government in the PDRR phase, for performance and efficiency.</p> <p>(e) The C3S architecture will be evaluated for flexibility to accommodate additional remote sensing missions. The design will be evaluated for flexibility to accommodate (i) technology assessment, development, and insertion; (ii) component assessment and selection; (iii) performance enhancements; (iv) requirement changes; and (v) future risk reduction plans for the C3S.</p> <p>(f) The C3S software design will be evaluated to ensure completeness, feasibility, performance, robustness, and maintainability.</p>

**Table 562-2.3 – Interface Data Processing Segment (IDPS)**

<p>2.3.1 INSTRUCTIONS. The offeror shall—</p> <p>(a) Provide the allocation of the system specification requirements to the IDPS specification.</p> <p>(b) Describe how the IDPS design meets the requirements of the IDPS specification, including how the IDPS design will facilitate generation of RDRs, SDRs, TDRs, and EDRs and deliver data to external users.</p> <p>(c) Describe any “deltas” in algorithm/science code design from ATMS, CMIS, CrIS, GPSOS, OMPS, and VIIRS instrument data processing baselines (the offeror need not substantiate established algorithm/science code baselines).</p> <p>(d) Describe the NPP IDPS system design and the approach to transition from the NPP IDPS architecture to the NPOESS architecture, including a description of RDR, SDR, TDR, and EDR processing.</p> <p>(e) Describe the benefit of any algorithm design changes recommended by the offeror to, and implemented by, the Government in the PDRR phase.</p> <p>(f) Describe the flexibility of its IDPS architecture to accommodate additional remote sensing missions, in addition to NPOESS and NPP (e.g., what generic changes would be required to process data from a TOPEX and a EUMETSAT satellite?).</p> <p>(g) Describe the IDPS software design, including (i) the allocation of IDPS requirements to software; (ii) how the design will meet those requirements; (iii) the use of COTS and its integration into the Segment; (iv) how sensor vendor algorithm software will be incorporated and integrated into the IDPS; (iv) how the algorithm software will be maintained; and (v) how the software design will accommodate modified and new algorithms.</p>	<p>2.3.2 EVALUATION CRITERIA.</p> <p>(a) The proposal will be evaluated for accurate and complete flow down of the system requirements to the IDPS specification.</p> <p>(b) The IDPS design will be evaluated against the parameters of the IDPS specification to verify that the IDPS design can deliver the required performance (the Government's evaluation may include using simulation, inspection, and/or analysis).</p> <p>(c) Design parameters varying from ATMS, CMIS, CrIS, GPSOS, OMPS, and VIIRS instrument baselines will be evaluated against the requirements of the IDPS specification, including an evaluation of the technical rationale and design benefit for all attributes that vary from the established baselines.</p> <p>(d) The NPP IDPS design will be evaluated for completeness, the ability to process NPP generated data, the ability to execute the program to meet NPP need dates, and optimization of the transition to NPOESS.</p> <p>(e) The Government will evaluate the benefit of any algorithm design changes recommended by the offeror to, and implemented by, the Government in the PDRR phase, for performance and efficiency.</p> <p>(f) The IDPS architecture will be evaluated for flexibility to accommodate additional remote sensing missions, including flexibility to accommodate (i) technology assessment, development, and insertion; (ii) component assessment and selection; (iii) performance enhancements; (iv) requirement changes; and (v) future risk reduction plans for the IDPS segment.</p> <p>(g) The IDPS software design will be evaluated to ensure completeness, feasibility, performance, robustness, and maintainability.</p>
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<b>Table 562-2.4 – Field Terminal Segment</b>	
<p><b>2.4.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Provide the allocation of the system specification requirements to the Field Terminal segment specification.</p> <p>(b) Describe how the Field Terminal segment design software meets the requirements in the Field Terminal segment specification and the approach to identify Government hardware requirements.</p> <p>(c) Describe EDR performance for HRD.</p> <p>(d) Describe EDR performance for LRD.</p> <p>(e) Discuss how design flexibility will accommodate segment changes/updates.</p> <p>(f) Describe the Field Terminal Segment software design, including (i) the allocation of Field Terminal requirements to software; (ii) how the design will meet those requirements; (iii) the use of COTS and Reusable Code and their integration into the Segment; (iv) how sensor vendor algorithm software will be incorporated and integrated into the Field Terminals; (v) how the algorithm software will be maintained; and (vi) how the software design will accommodate modified and new algorithms.</p>	<p><b>2.4.2 EVALUATION CRITERIA.</b></p> <p>(a) The proposal will be evaluated for accurate and complete flow down of the system performance requirements to the Field Terminal segment specification.</p> <p>(b) The Field Terminal segment design will be evaluated against the parameters of the Field Terminal Segment specification for meeting EDR performance requirements. The recommended hardware requirements and interface specifications for the HRD will be evaluated for its operational suitability in a regional, stationary-type environment. The recommended hardware requirements and interface specifications for the LRD will be evaluated for its operational suitability in a tactical, mobile, lightweight-type environment. (The Government's evaluation may include using simulation, inspection, and/or analysis.)</p> <p>(c) The segment design will be evaluated against EDR threshold performance requirements for HRD over a variety of environmental conditions.</p> <p>(d) The LRD EDR Performance specification in the Field Terminal Segment specification will be evaluated for best value performance.</p> <p>(e) The design will be evaluated for flexibility to accommodate (i) technology assessment, development, and insertion; (ii) component assessment and selection; (iii) performance enhancements; (iv) requirement changes; and (v) future risk reduction plans for the Field Terminal segment.</p> <p>(f) The Field Terminal Segment software design will be evaluated to ensure completeness, feasibility, performance, robustness, and maintainability.</p>

**L&M-562 — PROPOSAL VOLUME 2 INSTRUCTIONS — MISSION CAPABILITY (cont'd)****Section 3 – Subfactor 3 -- Systems Engineering, Integration & Test (SEIT) and Planning.**

This section outlines the information required to make an assessment of the adequacy of the overall systems engineering integration, & test (SEIT), and planning, approaches proposed for the program. A disciplined system engineering process, focused on reducing risk and cost, that is pervasive in terms of implementation of common tools and processes across the prime offeror, sister companies, subcontractors and vendors, is essential for program success. The first parts focus on information and criteria needed to assess the proposed Systems Engineering approach. The focus of the planning-related parts is program planning implementing a real time Integrated Management Framework (IMF) to support program insight and control, and planning for development and deployment of the integrated logistics support program for NPOESS. The tables show the information and criteria required to make an assessment of the adequacy of program planning, management and program processes, tools and procedures proposed by the offeror. To facilitate evaluation of this subfactor, it is subdivided into seven parts—

- 3.1 Systems Engineering Process (see Table 562-3.1);
- 3.2 Test and Evaluation Approach (see Table 562-3.2);
- 3.3 Integrated Management Framework (see Table 562-3.3);
- 3.4 Integrated Master Plan (see Table 562-3.4);
- 3.5 Integrated Master Schedule (see Table 562-3.5); and
- 3.6 Supportability (see Table 562-3.6)
- 3.7 Software Systems Engineering (See Table 562-3.7)

**Table 562-3.1 – Systems Engineering Process**

3.1.1 INSTRUCTIONS. The offeror shall—	3.1.2 EVALUATION CRITERIA.
<p>(a) Describe its systems engineering process (including tools) and how the subcontractor and sister company processes will be integrated into a single process.</p> <p>(b) Describe its plan to effectively coordinate its Systems Engineering process with the joint IPO /NASA NPP Systems Engineering process.</p> <p>(c) Describe its approach to managing NPOESS and NPP external and inter-segment interfaces and identify all external and inter-segment interfaces, ICDs, POCs, etc.</p> <p>(d) Describe its approach to EMI/EMC/RFI management, Contamination Control, and Configuration Management.</p> <p>(e) Describe its approach to Risk Management; Identify the top 10 risks for both the NPOESS and NPP programs, and discuss its risk management plans.</p>	<p>(a) The proposed system engineering process will be evaluated for a streamlined approach and the effective integration of the subcontractors and sister companies into the process.</p> <p>(b) The plans for integrating the Systems Engineering process into the NASA NPP Systems Engineering process will be evaluated for streamlining and effectiveness.</p> <p>(c) The approach to managing external and inter-segment interfaces will be evaluated to determine that it is comprehensive, well defined, mature, and that adequate interface control has been established.</p> <p>(d) The offeror's approach will be evaluated to assess understanding of EMI/EMC/RFI management, Contamination control, and Configuration Management.</p> <p>(e) The offeror's approach will be evaluated to assess understanding of risk management and demonstration of satisfactory plans for further risk management and mitigation.</p>

**Table 562-3.2 – Test And Evaluation Approach**

<p><b>3.2.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>Describe the approach for manufacturing, integration, environmental, acceptance testing and the acceptance criteria for IOC, and how they are integrated into the verification and test program following the guidance of the TEMP.</p>	<p><b>3.2.2 EVALUATION CRITERIA.</b></p> <p>The T&amp;E program will be evaluated to ensure that it is a comprehensive system verification approach compatible with TEMP guidance, that it will ensure maximum use of early testing, and that redundant testing is minimized.</p>
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**Table 562-3.3 – Integrated Management Framework (IMF)**

<p><b>3.3.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Describe how the CWBS flows from the Government WBS provided in L&amp;M Annex A.</p> <p>(b) Describe how the IMP and IMS flow from the CWBS and SOO.</p> <p>(c) Describe how the IMP and IMS formulate the BCWS.</p> <p>(d) Show how it will use the Earned Value Management System (EVMS) to control the program and ensure it is executed to schedule and allocated budget.</p>	<p><b>3.3.2 EVALUATION CRITERIA.</b></p> <p>(a) (b) (c) The offeror's IMF structure (CWBS, IMP, IMS) will be evaluated to ensure that the actions necessary to design, develop and produce the NPOESS are included and track with events, accomplishments, and criteria contained in the IMP and scheduled in the IMS.</p> <p>(d) The offeror's EVMS will be evaluated to ensure that it provides accurate, timely, meaningful management control information. In addition, the EVMS will be evaluated to ensure that work packages link to the IMP and IMS events, accomplishments, and criteria.</p>
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**Table 562-3.4 – Integrated Master Plan (IMP)**

<p><b>3.4.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Provide an IMP following the guidelines in L&amp;M-535 and including the events that the offeror feels are critical to the program.</p> <p>(b) In the IMP, provide IMP process narratives for its key systems engineering and management processes to include the linkages to subcontractors and sister divisions.</p>	<p><b>3.4.2 EVALUATION CRITERIA.</b></p> <p>(a) The IMP will be evaluated to ensure it contains clearly measurable events supported with well-defined accomplishments and criteria, which enable the offeror to monitor and manage progress in EMD development and production.</p> <p>(b) The processes described in the IMP will be evaluated to ensure they provide adequate controls and standardization and to ensure that they demonstrate that the offeror has adequate system engineering and management control processes in place for all aspects of the program.</p>
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**Table 562-3.5 – Integrated Master Schedule (IMS)**

<p><b>3.5.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Provide an IMS that details the program schedule required to execute the proposed program, including (i) linkage to the IMP events, accomplishments and criteria; (ii) the Critical Path clearly defined in the IMS; and (iii) a resource-loaded risk schedule.</p> <p>(b) Submit a report of a Monte Carlo simulation of the IMS critical path, reflecting 20/80, 50/50, and 80/20 probabilities of success.</p>	<p><b>3.5.2 EVALUATION CRITERIA.</b></p> <p>(a) The level of detail and integration of the IMS will be evaluated to determine how well it shows the calendar schedule and task loading to achieve each significant event.</p> <p>(b) The critical path will be evaluated to ensure that it is realistic, achievable, reflects a resource loaded risk schedule, and as demonstrated by Monte Carlo analysis, portrays a total program critical path.</p>
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**Table 562-3.6 – Supportability**

<p>3.6.1 INSTRUCTIONS. The offeror shall—</p> <p>(a) Provide a summary ILS description that addresses the following ILS elements for NPOESS and NPP initial and follow-on operations and maintenance capability, including (i) maintenance planning concept; (ii) supply support management concept; (iii) packaging, handling, storage and transportation concept; (iv) support equipment concept; (v) facility management concept; (vi) manpower and personnel concept; (vii) training management concept; (viii) computer resources management concept, and technical manual development concept.</p> <p>.</p> <p>(b) Provide the plan to develop and provide Interim Contractor Support (ICS) through IOC, including site activation support.</p>	<p>3.6.2 EVALUATION CRITERIA.</p> <p>(a) The offeror's ILS description will be evaluated to determine if it conveys a clearly integrated support approach, including NPP operations and maintenance.</p> <p>(b) The ICS plan will be evaluated to ensure that it provides a low risk, low cost approach to support operations through IOC.</p>
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**Table 562-3.7 Software Systems Engineering**

<p>3.7.1 INSTRUCTIONS. The offeror shall—</p> <p>(a) Describe its software development process and tools, including (i) software development management; (ii) coordination, integration and control of the software development among all software team members; (iii) the use and coordination of metrics; and (iv) the software and platform for the ground test bed for the development and maintenance of flight software</p> <p>(b) Provide the Software Engineering Institute (SEI) Capability Maturity Model (CMM) Level for each software team member (and where an organization is not at CMM Level 3, (a) the plans to get it to Level 3 in 18 months after award of contract or (b) plans to mitigate the software management risk of that organization for the life of the program) (Note 1: the rating must have been received within two years prior to the date of the proposal.) (Note 2: a software team member is any internal or external organization that develops, tests, or supports software-related work being performed for this contract; these organizations include, for example, intra-corporations software organizations, in-house service providers, developers, fabrication/manufacturing organizations, laboratories, and subcontractors).</p>	<p>3.7.2 EVALUATION CRITERIA.</p> <p>(a) The process will be evaluated to ensure soundness of the management approach, effective coordination and monitoring of the development, effectiveness of the metrics, and fidelity of the tools.</p> <p>(b) SEI certification levels will be evaluated to determine the team's capability and to assess program risk</p>
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**L&M-562 — PROPOSAL VOLUME 2 INSTRUCTIONS — MISSION CAPABILITY (cont'd)**

**Section 4 – Subfactor 4 – Management and Organization.**

This section outlines the overall management and organizational approach for the NPOESS EMD, Production and Interim Contractor Support programs. The focus of the section is the offeror's approach to organizing, staffing and managing the NPOESS program within a Total System Performance Responsibility (TSPR) environment and the offeror's facilities and processes required to complete the EMD, Production and Support programs. This section outlines the information required to make an assessment of the adequacy of organization and management approaches and plans proposed by the offeror. To facilitate evaluation of this subfactor, it is subdivided into five parts—

- 4.1 Overall Organizational Approach (see Table 562-4.1);
- 4.2 Subcontract and Sister Company Management (see Table 562-4.2);
- 4.3 Staffing Plan (see Table 562-4.3);
- 4.4 Facilities Planning (see Table 562-4.4); and
- 4.5 Design and Production Processes (see Table 562-4.5)

**Table 562-4.1 – Overall Organizational Approach**

<b>Table 562-4.1 – Overall Organizational Approach</b>	
<p><b>4.1.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Describe where the NPOESS program fits in the overall corporate and sector organizational structure.</p> <p>(b) Describe the program director's reporting channels and authority.</p> <p>(c) Describe the approach for integrating the teammates processes and management systems.</p> <p>(d) Provide certification levels for quality, program management, and systems engineering for the company and its teammates.</p> <p>(e) Describe the approach for accepting and executing Total System Performance Responsibility.(f) Describe the approach to establish and maintain the algorithms and algorithm support facility, including use of the Operational Algorithm Teams (OATs).</p> <p>(g) Provide an NPOESS program organizational chart that outlines its Integrated Product Team (IPT) structure, including (i) depiction of how the NPOESS program integrates with company core organizations and how Government representation on the IPTs will be implemented; and (ii) names of key personnel (e.g. program manager and deputies, system engineer, program control, IPT leads, etc.) and their company affiliations.</p>	<p><b>4.1.2 EVALUATION CRITERIA.</b></p> <p>(a) Organizational placement with respect to other programs being executed within the corporation or sector will be evaluated to assess the ability of the NPOESS manager to obtain corporation or sector resources and appropriate program priority.</p> <p>(b) The NPOESS Program Manager's reporting chain and level of financial decision authority will be evaluated to assess the ability of the NPOESS program management organization to be responsive to IPO requirements.</p> <p>(c) The offeror's approach to integrating teammate processes and management systems will be evaluated to determine the degree of standardization and streamlining across the NPOESS organizational structure.</p> <p>(d) Levels of quality, program management, and systems engineering certifications will be evaluated to determine the team's capabilities and to assess program risk.</p> <p>(e) The approach to accepting and executing TSPR will be evaluated to determine the offeror's ability to manage the NPOESS team to execute the NPOESS program within cost, schedule and performance constraints.</p> <p>(f) The offeror's approach to stand up and maintain the algorithm support facility will be evaluated to ensure that the facility can support day-to-day operations and system updates as they occur.(g) The organizational structure will be evaluated to ensure that IPTs are appropriately staffed and product oriented.</p>

**Table 562-4.2 – Subcontract and Sister Company Management**

<b>Table 562-4.2 – Subcontract and Sister Company Management</b>	
<p><b>4.3.1 INSTRUCTIONS.</b> The offeror shall—</p> <p>(a) Describe how subcontractor performance to schedule and cost targets will be managed.</p> <p>(b) Describe how it will incentivize employees, subcontractors, and sister companies to provide superior</p>	<p><b>4.3.2 EVALUATION CRITERIA.</b></p> <p>(a) Proposed subcontractor, sister company and vendor cost and schedule management controls will be evaluated to determine their consistency with the level of development and production risk.</p>

**Table 562-4.2 – Subcontract and Sister Company Management**

<p>program performance.</p> <p>(c) Identify the key teammates to include sister companies and their role in the program, defining the role in terms of work share and the basis of the work share determination.</p>	<p>(b) The offeror's incentivization approaches for its subcontractors and sister companies will be evaluated to ensure the offeror can achieve and maintain continued long-term commitment to the success of the program.</p> <p>(c) Span of control within the offeror's NPOESS organization and the offeror's proposed mechanisms for integrating subcontractors and sister companies will be evaluated to assess the offeror's ability to achieve adequate technical integration.</p>
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**Table 562-4.3 – Staffing Plan**

<p>4.4.1 INSTRUCTIONS. The offeror shall—</p> <p>(a) Describe how it plans to staff the EMD program, including include skill categories by levels ( i.e., junior, journeyman and senior software engineer, financial analyst, program management, etc.).</p> <p>(b) Describe the sources that it plans to use to staff the program for each skill category, including both internal and external sources. (c) Provide brief biographies of its key program personnel to include teammates (down to tier 3 in the program organizational structure).</p>	<p>4.4.2 EVALUATION CRITERIA.</p> <p>(a) The sufficiency of the proposed manning levels and skill mix will be evaluated to ensure that they are adequate to execute the program.</p> <p>(b) Proposed staffing sources will be evaluated for adequacy in terms of total numbers and availability. (c) Key personnel biographies will be evaluated to ensure that the offeror has staffed the NPOESS program with a leadership team possessing the knowledge, skills and experience required to deliver program success.</p>
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**Table 562-4.4 – Facilities Planning**

<p>4.5.1 INSTRUCTIONS. The offeror shall—</p> <p>(a) Identify critical internal and external facility requirements to support the design, development, production, operation, and sustainment of the NPOESS system, including test facilities.</p> <p>(b) Describe the facility need dates and period(s) of time that it will use the facility, including necessary set-up and teardown times.</p> <p>(c) Identify any capital investment anticipated and construction that may be necessary to support the program.</p> <p>(d) Identify any potential scheduling conflicts and how it plans to manage the potential conflicts.</p> <p>(e) Describe the process used by the program and IPT leads to obtain the resources required for program execution (e.g., IT, tools, facilities, indirect funding, capital investment).</p>	<p>4.5.2 EVALUATION CRITERIA.</p> <p>(a) The facility plan will be evaluated to ensure that all required facilities are identified and that the availability of critical facilities will be actively managed.</p> <p>(b) Facility use dates will be evaluated to ensure that they are compatible with the overall program schedule and reflect reasonable periods of use.</p> <p>(c) Proposed capital investments and facility construction requirements will be evaluated to ensure that they are consistent with program's schedule.</p> <p>(d) Risks associated with potential facility conflicts will be evaluated to determine associated program impacts.</p> <p>(e) The IPT resource acquisition process will be evaluated to ensure that IPT leads can obtain the resources required to deliver their products, and that they will be held accountable for delivering a product that conforms to requirements on schedule and on cost.</p>
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**Table 562-4.5 – Design and Production Processes**

<p>4.6.1 INSTRUCTIONS. The offeror shall—</p> <p>Describe how design and production processes are flexible enough to meet segment changes/upgrades necessitated by the changing needs of the program.</p>	<p>4.6.2 EVALUATION CRITERIA.</p> <p>Design and production processes flexibility will be evaluated for realism and executability.</p>
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**L&M-563 — PROPOSAL VOLUME 3 INSTRUCTIONS — PAST PERFORMANCE**

(a) Offerors may submit current and past performance data occurring since March 1997 for themselves and for each proposed critical subcontractor (as determined by the offeror based on the scope of each subcontract and relevance to the program) and/or joint venture partner, that they consider relevant in demonstrating the ability to perform the proposed EMD/Production effort. The offerors' past performance information may include data on efforts performed by other divisions or corporate management only if such resources will be used or significantly influence the performance of the proposed effort. Contracts listed may include those with the Federal Government, state and local governments or their agencies, and commercial customers. Offerors that are newly formed entities without prior contracts or that do not possess relevant corporate past performance shall list contracts demonstrating the past performance of all key personnel. Volume III should address Past and Present Performance contract information only.

(b) The offeror shall include, and identify as such, at least three relevant success/turnaround contracts detailing problems encountered, recovery methodologies, and relative success obtained in alleviating these problems as part of the past performance submissions specified in paragraph (a).

(c) The offeror shall also submit, and identify as such, at least three relevant success/turnaround contracts for any subcontractor, teaming contractor, and/or joint venture partner that will be involved with the Interface Data Processing Segment (IDPS).

(d) To aid in evaluating relevancy of submitted contracts, the offeror shall describe how the work performed under the submitted contract compares in complexity to the proposed effort and how the relevancy of this work applies to the four mission capability performance subfactors plus cost. Offerors should note that some contracts may be more complex than the proposed effort, but could be less relevant than contracts with similar complexity to the proposed effort.

(e) The offeror shall also provide a listing of all contracts that have been terminated since March 1997 with a summary of the termination rationale.

(f) The Volume 3 page count limit is three pages per contract identified, not to exceed 50 pages total. The total number of contracts shall not exceed eight contracts for the prime contractor. Questionnaire tracking records, contact data sheets, and client authorization letters are excluded from the page count limit.

(g) The Past Performance Volume shall contain the following sections:

(g)(1) Section 1 – Offeror's Experience Summary Table. Offerors shall submit an experience summary table that depicts related experience by any part of the offeror's team. At a minimum, the table shall reference programs submitted in Volume 3. Work must be applicable to the TSPR contract, but could have been performed anytime. This section shall consist of one page using the table format shown below. The first column will denote whether the contract was accomplished by the prime contractor or by a subcontractor. The second column will contain the name of the program being submitted for evaluation. The remaining columns will contain one of the following symbols:

**Table L&M 563-1 Offeror's Experience Summary Table**

Contractor	Program Element/ Proposal Requirement	System Performance	Segment Design	SEIT & Planning	Management and Organization	Cost
	Program					
	Contract 1					
	Contract 2					

Note: A filled in circle (●) if effort performed for a particular program element since March 1997. An open circle (○) if effort performed for a particular program element was earlier than March 1997. A blank, if offeror or sub-contractor has no experience in this area.

(g)(2) Section 2 – Contract Descriptions. The offeror shall submit a description of contracts where it performed or is performing work as a prime contractor similar to the work contemplated by the RFP. This section shall be organized by contract and shall include the following information for each contract discussed:

- i. Contractor/Subcontractor places of performance, CAGE Codes and DUNS numbers
- ii. Government contracting activity, address, telephone, and fax number
- iii. Name, address, telephone, and fax numbers for:
  - a. Procuring Contracting Officers, Contract Administrators, Administrative Contracting Officers
  - b. Program, Project, or subcontract Managers – Procuring Agency
  - c. Technical representative – Procuring Agency
  - d. Other Cognizant Authorities (e.g., previous program managers, Contracting Officers, technical leads)
- iv. Contract Number
- v. Contract Type
- vi. Award date
- vii. Awarded price/cost – Final negotiated price/cost
- viii. Final, or projected final, price/cost -
  - a. Actual contract cost for the time period being evaluated, vs. cost of the program over whole lifecycle.
  - b. Actual contract cost by subcontract, vs. cost of entire project (when applicable)
- ix. Original delivery schedule – Final Negotiated (contractual) delivery schedule
- x. Final, or projected final, delivery schedule
- xi. If a fee or incentive type contract, specify the percentage of the fee for each period since March 1997. Provide rating and accompanying rationale.
- xii. Performance and Relevancy Narratives.
  - a. Offerors shall provide a specific narrative explanation of each contract listed describing the objectives achieved and detailing how the effort is similar to any requirements of this solicitation. (NOTE: Not all submitted contracts need address all requirements.) This discussion shall justify ratings given in the Relevancy Matrix for this contract (see Item xiii) by specifically addressing the relevancy criteria used for this evaluation. For contracts awarded prior to March 1997, limit the narrative discussion to work performed since that date. The narrative shall explain what design and test milestones were accomplished and/or products delivered since March 1997. If it is necessary to refer to earlier work at any point in the narrative, specifically identify it as such. Include a brief explanation and corrective action for any contracts that did not meet original cost, schedule, or technical performance requirements. List each time the delivery schedule was revised and provide an explanation of why the revision was necessary, including clarification of whether cost and or schedule revision(s) were Government directed. If final or projected costs are greater than award costs, quantify how much of the cost growth was not due to Government directed added scope, schedule slips, etc. Provide a copy and a summary of any cure notices or show cause notices received on each contract listed and a description of any corrective action taken. Indicate if any of the contracts listed were terminated and the type and reasons for the termination.

b. The offeror shall also include a narrative description of the relevance of the offeror's past performance to each of the Mission Capability Sub-factors identified in the relevancy matrix below, and shall point out how the contract met or achieved those critical areas. The narrative shall also include a description of how that past performance is relevant to the proposed NPOESS effort. The relevancy description shall focus on the similarities between the work performed on that contract and the work that contractor will perform on NPOESS, rather than a description of how that experience, expertise, and/or product will benefit the NPOESS program in general.

c. The offeror may describe any current quality awards, provided to the segment of the company that will support the NPOESS EMD/Production effort or certifications that indicate the offeror possesses a high-quality process for developing and producing the product or service required. Examples of such awards or certifications include: the Malcolm Baldrige Quality Award, other Government quality awards, and private sector awards or certifications. Identify the segment of the company received the award or certification, the award duration (i.e. yearly, quarterly, etc), when it was bestowed, and why they received this award. The offeror shall not include performance data from other divisions or "corporate management" entities not planned for direct involvement during the execution of the program.

d. For those efforts in which the offeror is aware of unfavorable and/or Marginal past performance, but in which the offeror has made significant progress not yet credited or formally documented, the offeror shall provide a narrative explaining "fixes" made to date or any other information regarding the unfavorable/Marginal assessment. The offeror shall include similar language for each critical subcontractor, teaming contractor, and/or joint venture partner for whom this is applicable. The narrative shall contain evidence of the offeror's ability to isolate the root causes of problems and shall describe programs or actions taken to resolve those causes. The offeror shall describe all lessons learned in such a way as to show benefit on the NPOESS EMD/Production contract. Problems not addressed by the offeror, but found by the Government during the evaluation of the information in this volume or independently obtained, will be assumed to still exist. Note: In the case of the Air Force's Contractor Performance Assessment Reporting System (CPARS), if the offeror has already provided input and the rationale/ circumstances have not changed, DO NOT repeat them here. The Government will use data provided by each offeror in this volume and data obtained from other sources in the development of performance risk assessments. Also, the Government will use the Past Performance Questionnaire (Annex B) to obtain past performance information. The Government reserves the right to change and/or supplement the questionnaire.

- xiii. Performance/Relevancy Matrix. Offerors shall also submit a performance/relevancy matrix (Table 563-2) for each contract with the information provided in the matrix corresponding to the narrative provided above. Each contract or subcontract on which relevant experience was gained in a Mission Capability sub-factor shall have a matrix filled in as shown below. The "P/S" column must have a P or S to denote that the experience was either as a prime contractor or as a sub-contractor. The "Relevancy" column shall denote relevance, using the relevancy ratings defined in Table 512-2, of the team's performance/relevancy in the contract with respect to the role that team will perform on the NPOESS effort. Fill each space in the columns, unless the contract reflects no performance/relevancy in that area, in which case the space is to be left blank.

Table L&M 563-2 — Performance/Relevancy Matrix			
		P/S	Relevancy "1" to "5"
CONTRACTOR:			
M. C. Subfactors	System Performance		
	Segment Design		
	SEIT & Planning		
	Management and Organization		
Cost			

Items (i) through (xii) of Section 2 and award fee percentages shall be addressed together under one table. The "Relevancy Matrix" is to be placed to the right of the first table and the "Performance and Relevancy Narratives" is to be placed below the matrix.

(g)(3) Section 3 - Subcontracts. Offerors shall provide a summary outline of how the effort required by the solicitation shall be assigned for performance within the contractor's corporate entity and among the proposed subcontractors. Offerors shall provide the information required above for any proposed subcontractor who shall perform a significant portion of the NPOESS EMD effort.

(g)(4) Section 4 - New Corporate Entities. New corporate entities may submit data on prior contracts involving its officers and employees. However, in addition to the other requirements in this section, the offeror shall discuss in detail the role performed by such persons in the prior contracts cited.

(g)(5) Section 5 – Questionnaires. So that the Government may know from whom it should expect a completed Past and Present Performance Questionnaire, the offeror shall provide a listing of the entities from whom it has requested submission of a questionnaire (see sample tracking record in the NPOESS electronic library (<http://npoesslib.ipn.noaa.gov>)). This section will also include a photocopy of each such request. Questionnaires are to be sent by offeror to Government PM's, CO's, etc. (See Annex B for specific guidance regarding questionnaires).

(g)(6) Section 6 – Award Fee Letters. For submitted contracts that have award fee, offerors shall submit Fee Determining Official award fee letters. Only submit letters from within the last five years. These letters shall not count toward the page count of this volume. If a letter(s) cannot be found, provide an explanation of efforts accomplished and a point of contact used to obtain other letters for the contract. If an award fee percentage is available where there is no letter available, submit the percentage.

(g)(7) Section 7 – Classified Proposals. The contracting officer's approval is required prior to submitting classified information, and instructions for submission will accompany the approval. Classified pages shall count against the total page limitation (if any) for the affected volume.

## **L&M-564 — PROPOSAL VOLUME 4 INSTRUCTIONS — COST**

**Section 1 – Introduction.** This section shall include a Table of Contents, specifying, by page number, where each cost/price format and each piece of narrative data is located.

### **Section 2 – Cost Information.**

#### **(2.1) Cost Formats.**

(2.1.1) Overview. The cost/price volume proposal overview shall provide comprehensive narrative support for the cost/price proposal volume. The narrative shall explain the philosophy and methodology used in developing the estimates along with appropriate historical cost data illustrations, labor categories and hours.

#### **(2.1.2) Estimating Methodology.** The offeror shall—

(a) Provide a summary description of the standard estimating system or methods. The summary description shall cover separately each major cost element (e.g., Direct Material, Engineering Labor, Manufacturing Labor, Indirect Costs, Other Direct Costs, Overhead, G&A, etc.) unless a parametric model was used that does not provide this level of data. If a parametric model was used, provide a description of the model and the input parameters required. Also, identify any deviations from standard estimating procedures in preparing this proposal volume. Indicate whether the Government has approved the estimating system and /or parametric model and, if so, provide evidence of such approval.

(b) Provide a summary description of the proposed purchasing system or methods (e.g., how material requirements are determined, how sources are selected, when firm quotes are obtained, what provision is made to ensure quantity and other discounts). Also, identify any deviations from standard procedures employed in preparing this proposal. Indicate whether the Government has approved the purchasing system and if so, provide evidence of such approval.

(c) Indicate whether the Government has approved the accounting system, and, if so, provide evidence of such approval. Also, identify any deviations from standard procedures used in preparing this proposal.

(d) If estimated costs required to perform the proposed effort have been decreased due to a management-directed reduction, provide a summary of the reduction by major cost element summary and complete rationale for the reduction.

#### **(2.2) Information Other than Cost or Pricing Data.** The offeror shall—

(2.2.1) Provide then-year-funding requirements by Government fiscal year by appropriation, supported by quarterly projections of expenditures, commitments, and termination expenses.

(2.2.2) Provide a cost summary for the instant contract by major cost elements by CLINs for each FY. The offeror also shall include a cost summary sheet that totals all CLINs by Government FY (see sample at Table 564-7 (Cost Summary by CLIN by Fiscal Year)).

(2.2.3) Submit a CWBS summary schedule in the example shown at Table 564-6 (CWBS Summary Schedule). In the first column, "CWBS No.", insert the proposed CWBS to correspond to the elements of cost stated in the "Description" column. The CWBS number shall be the highest level CWBS that will permit a meaningful analysis (minimum level as described in Section L & M Annex A -- WBS). Provide summations to all higher CWBS levels. All hours shown in this table shall be consistent with hours stated in the cost summary. The offeror also shall provide relevant documentation to explain the rationale for proposed labor and Other Direct Costs. This documentation shall include but is not limited to un-priced BOE sheets and the proposed labor skill mix.

(2.2.4) Provide a Basis of Estimate containing relevant documentation for both prime offeror and subcontractor effort which shall explain the rationale for the proposed labor and other direct costs. The offeror shall describe in general terms how the hour estimate for each CWBS element was developed. The offeror shall specify the type of data used to develop the estimate, i.e., historical experience from XYZ program, why that program was relevant, engineering judgment, and cost estimating relationships (CERs, etc.). The offeror shall include an identification and brief description of each CWBS element. The offeror shall also include for each CWBS element a skill mix identification and position description for both prime and subcontractor effort. (See example for BOE Labor Skill Mix at Table 564-1 (BOE Labor Skill Mix)).

(2.2.4.1) For each computer software configuration item (CSCI) the offeror shall provide the number of new and pre-existing (designed for reuse & not designed for reuse) source lines of code (SLOC). Existing software intended for reuse should be explicitly identified as to the origin of the software, and whether it is commercial-off-the-shelf (COTS), a tailored development effort from a named program, or other origin.

The offeror shall provide the basis for each cost estimate in sufficient detail to permit Government verification. This should include the identification of cost estimating tools/methodologies and the corresponding input parameters.

Where parametric models are used as a primary or cross-check methodology, it is highly encouraged that all model input files be provided. Such parametric inputs and resulting model outputs must be clearly reconcilable with the offeror's proposal and enable the Government to recreate the estimate of software costs by CSCI.

**Table 564-1 — BOE Labor Skill Mix (Sample)**

Skill Mix	CWBS No.	Hours
Senior Engineer		2,000
Lead Engineer		4,050
Technician		950
Total Hours		7,000

(2.2.5) Submit a listing of the proposed probable subcontractors and inter-divisional transfers showing (a) the supplier; (b) description of effort; (c) type of contract; (d) price and hours proposed by each, and (e) price and hours included in prime's proposal to the Government (see example at Table 564-2 (Schedule of Probable Subcontractors)).

(2.2.6) Submit by CWBS element a listing of each major material item with an extended value exceeding \$100,000 showing nomenclature, part number, quantity required, unit price, and extended price. (See example at Table 564-3 (Schedule of Major Material Items)). Identify if item is part of prime contract or subcontract.

**Table 564-2 —Schedule of Probable Subcontractors (Sample)**

SUPPLIER	DESCRIPTION OF EFFORT	TYPE CONTRACT	SUBS HRS	SUBS PRICE	PROP HRS	PROP PRICE
TOTALS						

Table 564-3 — Schedule Of Major Material Items (Sample)					
CWBS No.	NOMENCLATURE	PART NUMBER	QTY REQ'D	UNIT PRICE	TOTAL PRICE
	TOTALS				

(2.2.7) Provide a schedule of rates—

(a) Submit a schedule showing proposed direct and indirect rates by year. This schedule is to include (but separately identify) offeror, subcontractor(s) and inter-divisional transfer(s) rates. Note, if subcontractor cost proposals or inter-divisional rates are not available to the offeror, the offeror shall have this data sent directly to the Contracting Officer by the proposal deadline and reference this solicitation number (see example at Table 564-8 (Schedule of Rates)).

(b) Submit data to support all indirect rates used in calculating the proposed costs. Each offeror shall indicate whether the proposed indirect rates are those negotiated under a Forward Pricing Rate Agreement (FPRA). If the offeror has a current FPRA and has proposed rates other than the FPRA rates, the offeror shall identify the proposed rate versus the FPRA rate and state the estimated total cost difference. In addition, each offeror shall explain the method and basis of allocation for each rate.

(2.2.8) Submit an electronically encoded cost/price model in support of the proposed price. The cost/price model submitted must be consistent with the offeror's approved estimating system and must duplicate the logic and mathematical formula reflected in the paper copy of the proposal. Data file(s) shall be in .XLS file format (MS Excel, Release 5.0 or later) or compatible format. Cost/price models submitted shall comply with this section. PDR LCCE model may be acceptable.

**Section 3 – Other Information.** The offeror shall provide any other relevant cost assumptions and information, which form the basis of its proposal. These cost assumptions and information include, but are not limited to, the use of Government-furnished property, Government-furnished equipment, advance procurement costs, termination costs, inflation rate summary and explanation, special tooling, special test equipment. The offeror shall list any exception or qualification it has taken to the ground rules and assumptions provided in the solicitation, and provide complete rationale.

**Section 4 – Preliminary Design Review (PDR) Life-Cycle cost Estimate (LCCE).** The offeror shall submit a PDR LCCE in offeror format that is consistent with the proposed technical baseline and submit a basis of estimate/methodologies used for the PDR LCCE. The Government has provided a list of the Government's ground rules and assumptions at L&M-540, which may be referenced here. The Government will provide a Summary WBS & Dictionary and may be referenced in the LCCE. The offeror shall provide a lower level WBS & Dictionary of all estimate accounts for entire scope of the NPOESS, including GFE, in accordance with estimating guidance. For any Government-furnished resources proposed by the offeror, the offeror shall describe the basis for assuming the availability of those resources, estimate the marginal cost of using such resources, and propose alternate sources to be used if the resources are not provided, and the cost of these alternate sources. The offeror shall provide justification if the estimate exceeds the CAIV targets (BY\$02 Threshold) or if the proposed contract funding requirements exceed the cumulative budget profile (TY\$ Threshold) shown in the figures below. The LCCE estimate relative to the CAIV objectives shall be evaluated consistent with the Consolidated NPOESS EDR Prioritization List at Table 520-2.

Table 564-4 — Total Program CAIV Targets		
BY02\$M	Threshold	Objective
O&S (through end of Mission Life)	955	955
Acquisition (EMD to End of Mission Life)	3,341	3,133

Excluded: Government Program Office
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**Table 564-5 — Cumulative Funding Profile**

TY\$M	FY02	FY03	FY04	F05	FY06	FY07	FY08	FY09
Threshold	68	446	942	1413	1930	2504	2885	3238
Objective	60	415	884	1331	1822	2368	2732	3070
Excludes:	Government Program Office				--	--	--	--
	Standard Launch Services				75		75	75

**Table 564-6 — CWBS Summary Schedule (Sample)**

CWBS NO.	DESCRIPTION	FYXX	FYXX	FYXX	etc.	TOTALS
X.X	Sensor Suite					
	Prime Hours					
	Sub 1 Hours					
	Sub n Hours					
	Inter-divisional Hours					
	Material - Prime					
	Material - Sub 1					
	Material - Sub n					
	Material - Inter-divisional					
	Total - Prime					
	Total - Sub 1					
	Total - Sub n					
	Total -Inter-divisional					
X.X	EDR Algorithms					
	Prime Hours					
	Sub 1 Hours					
	Sub n Hours					
	Inter-divisional Hours					
	Material - Prime					
	Material - Sub 1					
	Material - Sub n					
	Material - Inter-divisional					
	Total - Prime					
	Total - Sub 1					
	Total - Sub n					
	Total -Inter-divisional					
Etc.	Etc.					
TOTALS						

<b>Table 564-7 — Cost Summary by CLIN by Fiscal Year (Sample)</b>				
<b>CLIN: XXXX</b>				
<b>COST ELEMENT</b>	<b>FY01</b>	<b>FY02</b>	<b>etc.</b>	<b>TOTAL</b>
Prime Hours				
Sub 1 Hours				
Sub n Hours				
Inter-divisional Hours				
Total Hours				
Direct Labor - Prime				
Overhead - Prime				
Material - Prime				
Subcontractor 1				
Subcontractor n				
Inter-divisional				
Other Direct Costs - Prime				
Subtotal				
G&A				
Estimated Cost				
Facility Capital Cost of Money				
Award Fee				
Initial Target Profit				
Total Cost Plus Initial Target Profit/Award Fee				
Ceiling Price				
Material - Subcontractor 1 (non-add)				
Material - Subcontractor n (non-add)				
Material - Inter-divisional (non-add)				

<b>Table 564-8 — Schedule of Rates (Sample)</b>					
<b>ELEMENTS OF COST (RATE CATEGORIES)</b>	<b>PRIME 2001</b>	<b>PRIME 2002</b>	<b>SUB1 2001</b>	<b>SUB2 2001</b>	<b>IDT 2001</b>
(all categories of labor such as:)					
LC-1 Program Manager					
LC-2 Program Engineer					
(all indirect rates and profit/fee)					
Material Overhead					
G&A					
Facilities Capital Cost of Money					
Award Fee					
Initial Target Profit					
Ceiling Profit					
Share Ratio - Over Target					
Share Ratio - Under Target					

**L&M-565 — PROPOSAL VOLUME 5 INSTRUCTIONS — PROGRAM RISK MITIGATION ORAL PRESENTATION**

(a) This volume shall consist of Power Point slides without facing page text. The only page limit is the offeror's practical ability to present and discuss all of them at its Program Risk Mitigation Oral Presentation. Where the offeror intends to provide hands-on, computer simulations, or other modes of presentation, the information to be provided or demonstrated must be graphically summarized in one or more Power Point slides in this volume with a notation that the hands-on, computer simulations, or other presentation modes will be provided at the combined Program Risk Mitigation Oral Presentation.

(b) The offeror is cautioned that this volume is due to the Government on the common cut-off date for submission of its complete proposal and that no changes will be permitted before the Program Risk Mitigation Oral Presentation is conducted.

(c) In the electronic version of this volume on CD-ROM, the offeror is encouraged to liberally link from its Mission Capability, Past Performance, and Cost Volumes to this volume wherever doing so will help substantiate or reinforce the assertions made in those volumes.

**L&M-566 — PROPOSAL VOLUME 6 INSTRUCTIONS — MODEL CONTRACT**

This volume will comprise the offeror's offer, complete in every respect and ready for acceptance by the Government. This volume is not subject to a page limitation. At a minimum, it shall include the items listed below.

- (1) Model Contract Section A (SF-33), with signature of official authorized to bind the offeror (use contract number F04701-02-0500 everywhere a contract number is required here and elsewhere).
- (2) Model Contract Sections B-J.
- (3) Model Contract CDRL Exhibit A. A complete listing of data the offeror intends to provide or make available, using DD Form 1423.
- (4) Model Contract Atch 1 Integrated Master Plan (identical to the IMP submitted in Volume 2).
- (5) Model Contract Atch 2 NPOESS System Specification.
- (6) Model Contract Atch 3 Contract Work Breakdown Structure.
- (7) Model Contract Atch 4 Award Fee and Mission Success Fee Plan.
- (8) Model Contract Atch 5 Government-Furnished Property (GFP). The Government contemplates providing the SARSAT and ADCS instruments as GFP. The Government also contemplates providing facilities for MMCs and IDPS at Centrals. If an offeror desires use of other GFP, it shall submit a list of any GFP or Special Tooling and Test Equipment needed to perform the EMD effort at the prime or subcontract level. If no GFP is required, so state. Provide written permission of the contracting officer or other Government representative possessing control of the property to permit its use in (16) below.  
NOTE: It is the offeror's responsibility to arrange for the use of any Government property needed in performance. Also provide an assessment of the cost and schedule impacts of nonavailability of desired GFP.
- (9) Model Contract Atch 6 Technical Data Restrictions. Pursuant to DFARS provision 252.227- 7013, list any data which the offeror proposes to deliver with other than unlimited rights, and define the limitations it proposes to apply (e.g., limited rights, Government Purpose License Rights, etc.). If the offeror notifies the Government that technical data will be delivered with other than unlimited rights, the notice shall be accompanied by the representation found in DFARS 252.227-7013(j), and shall be included herein. For all such instances, include—
  - (A) name of party claiming rights in data (the prime or subcontractor);
  - (B) type of items, components, processes or computer software;
  - (C) description of technical data or computer software; and
  - (D) type of Government rights restrictions.
- (10) Model Contract Atch 7 Small, Small Disadvantaged, and Women-Owned Business Subcontracting Plan.
- (11) Model Contract Atch 8 DoD Contract Security Classification Specification, DD Form 254, with the offeror's information included in the form.

Additional documents should be included as appendices to Volume VI:

- (12) Representations and Certifications (RFP Section K, completed by the offeror).
- (13) Exceptions and Explanations. In every instance where the model contract differs from the RFP (except for providing expected standard fill-ins), provide a rationale for the difference. For each instance, also provide a statement expressing whether or not the difference is material (that is, whether or not the offeror's proposal is conditioned upon the Government's acceptance of the difference). Also provide any other documentation or reports required by the RFP, or any other notices or explanations from the offeror needed to explain the proposed business arrangement.
- (14) Location Information. Provide the name, street address, mailing address, Zip code, county, size of business (large or small), and labor surplus area designation of all facilities performing over \$10 million of effort on the contract. Indicate if facility is a division, affiliate, subcontractor or associate. If more than one place of performance is listed, indicate the percentage of work to be performed at each.
- (15) Incentives, Commitments, and Warranties. If the offeror proposes any incentives, commitments, or warranties for the Government's benefit, these will be detailed here.
- (16) GFP Written Authorization.
- (17) Instrument Subcontract arrangements.
- (19) Export Control. Inasmuch as performance of a contract resulting from this solicitation may involve technical data which is subject to the export licensing jurisdiction of the Department of State and

its International Traffic in Arms Regulation (22 CFR 120-130 and the U. S. Munitions List), the offeror shall describe any foreign involvement in the proposal or proposed contract performance and how it has or will comply with U. S. export control laws and regulations along with any actions which may be required by the Government.

(20) Mentor-Protégé candidates.

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**DRAFT**

**Annex A to Section L-M  
F04701-02-R-XXXX**

**NPOESS Work Breakdown Structure (WBS)**

**NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL  
SATELLITE SYSTEM (NPOESS)**

**date**

THIS ANNEX, INCLUDING THE  
COVER, CONSISTS OF X PAGES

# DRAFT

## Purpose

The following is a Work Breakdown Structure (WBS) for the entire NPOESS program. It covers all efforts potentially required to meet the program objectives throughout the program lifecycle. The lifecycle for the NPOESS program begins at Milestone I, March 1997 and runs through the end of the mission life as defined in the Integrated Operational Requirements Document (IORD) and the Technical Requirements Document (TRD). This approximately 20 year period, from 1997 to 2018, includes effort performed on multiple contracts. Each contract contributes to one or more parts of the overall program WBS. Under the Total System Performance Responsibility (TSPR) concept, the TSPR contract includes effort in most of these WBS elements. To simplify accounting, two elements have been created which specifically exclude TSPR contractor effort. These are the Launch Segment, WBS 1.1, and the Government Program Office, WBS 1.15. TSPR contributions to launch support are included primarily in the Flight Support Operations and Services (FSOS), WBS 1.10. The remaining elements describe additional efforts that may be required to achieve the NPOESS program objectives.

The WBS allows the Government and TSPR offeror to organize their estimates under a common structure. When extending the WBS into a Contract WBS (CWBS), the TSPR effort shall be allocated in accordance with the definitions contained herein. It is not required that the CWBS include the full range of efforts described in the definitions nor that it extend from all WBS elements. Depending on the system architecture proposed, some elements may not be necessary to achieve program objectives. Similarly, elements may contain effort that will be provided by the Government. The CWBS shall extend only below the provided elements. Equipment, services, support, or other resources exclusively provided by the Government are labeled Government Furnished (GF).

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## Work Breakdown Structure (WBS)\*

- 1 National Polar-orbiting Operational Environmental Satellite System (NPOESS)
  - 1.1 Launch Vehicle Segment (GF)
    - 1.1.1 Launch Vehicle Services (GF)
    - 1.1.2 Mission Unique Integration (GF)
  - 1.2 Space Segment
    - 1.2.1 Satellite Assembly, Integration & Test
    - 1.2.2 Spacecraft
    - 1.2.3 Payload
      - 1.2.3.1 VIIRS
      - 1.2.3.2 CMIS
      - 1.2.3.3 CrIS
      - 1.2.3.4 ATMS
      - 1.2.3.5 OMPS
      - 1.2.3.6 GPSOS
      - 1.2.3.7 ADCS (GF)
      - 1.2.3.8 SARSAT (GF)
      - 1.2.3.n Other Payloads (*SESS, TSIS, ERBS, Radar Altimeter, Survivability Sensor, and APS, etc.*)
  - 1.3 Command, Control & Communications Segment (C<sup>3</sup>S)
  - 1.4 Interface Data Processing Segment (IDPS)
  - 1.5 Systems Engineering/Program Management (SE/PM) & Data
  - 1.6 System Test & Evaluation
  - 1.7 Systems Training
  - 1.8 Peculiar Support Equipment (PSE)
  - 1.9 Common Support Equipment (CSE)
  - 1.10 Flight Support Operations & Services (FSOS)
    - 1.10.1 Mission Unique Integration
    - 1.10.2 Mate, Checkout, and Launch
    - 1.10.3 On-Orbit Support and Operations
  - 1.11 Storage
  - 1.12 Industrial Facilities
  - 1.13 Initial Spares & Repair Parts
  - 1.14 Operations & Support (O&S)
  - 1.15 U.S. Government Program Office (GPO) Support (GF)
  - 1.16 Field Terminal Segment

\*(Note: An alternative numbering system by Offeror is authorized.)

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## **1 National Polar-orbiting Operational Environmental Satellite System (NPOESS)**

This refers to the hardware, software, data, services, and facilities required to attain and/or maintain NPOESS. NPOESS includes launch vehicles, satellites, communications, command and control, processing facilities and equipment, mission integration, and other mission equipment and personnel necessary to provide and sustain an operational capability in space. Specifically, the NPOESS is a joint agency program combining the capabilities of the DoD DMSP and DOC POES operational space systems into a single converged system. The program will be required to provide, for approximately a decade, a remote sensing capability to acquire, receive (at ground terminals), and disseminate (to processing centers), global and regional data. These data include cloud cover imagery as well as other specialized meteorological, climatic, terrestrial, oceanographic, and solar-geophysical data. The goal of the converged program is to reduce the cost of acquiring and operating the U.S. polar-orbiting environmental satellite systems, while continuing to satisfy United States operational civil and national security requirements. It is anticipated that operational data will be collected with a variety of sensors to provide both civil and military environmental data.

### **1.1 Launch Segment (Government Furnished)**

This segment includes all costs to procure the launch vehicle, integrate the satellite (s) with a launch vehicle, and launch the satellite into the required orbit. NPOESS satellites are designed to be compatible with the Evolved Expendable Launch Vehicle. This segment also includes costs for launch services which include the organization, maintenance and management of launch vehicle facilities and mission equipment, launch base support and flight support operation for the launch vehicle. Other flight support operation costs are assigned under WBS element 1.10. Flight Support Operations & Services.

#### **1.1.1 Launch Vehicle Services (Government Furnished)**

This element refers to the materials and services provided by the Launch Vehicle Contractor (LVC) that are needed to place the NPOESS satellite into orbit using the MLV class of the EELV boosters. Launch vehicle services includes all processing operations, standard payload integration, and launch. Standard payload integration is defined per the EELV Program Standard Interface Specification and provides a pre-defined envelope of basic interfaces and services.

#### **1.1.2 Mission Unique Integration (Government Furnished)**

This element refers to the services provided by the LVC to accomplish first launch LV/SV mission unique integration (MUI). MUI normally occurs only on the first launch but may be required for subsequent launches due to mission, spacecraft, or payload changes that could impact the booster, payload interface, or launch site facilities. The scope varies greatly and can impact any or all LV systems: structural, electrical, or mechanical elements.

## 1.2 Space Segment

This Segment includes recurring and nonrecurring costs of all components for risk reduction, design, qualification, and production of the completed satellite ready for shipment to launch site or storage. The major components of the space segment are satellite integration, assembly & test, spacecraft bus, IPO-developed sensors, leveraged payloads, and Government furnished (GF) payloads. The functions of the space segment are to sense and collect data, receive and execute commands from the C3 segment, transmit stored mission data to the C3 segment, and transmit high rate and low rate data to external field terminal collection platforms. **1.2.1 Satellite Integration, Assembly, and Test (IAT)**

This element refers to all satellite efforts associated with the design, development, and production of mating surfaces, structures, equipment, parts, materials, and software required to assemble associated level 3 WBS elements into level 2 mission equipment (hardware/software) as a whole and not directly part of any other individual level 3 element. IAT includes all efforts associated with the following: (a) The development of engineering layouts and determination of overall design characteristics; (b) The set up, conduct and review of testing assembled components or subsystems prior to installation; (c) The detailed production design, producibility engineering planning (PEP), and manufacturing process capability, including the process design development and demonstration effort to achieve compatibility with engineering requirements and the ability to produce economically and with consistent quality; (d) Inspection activities related to receiving, factory and vendor liaison; (e) Design maintenance effort; (f) Quality planning and control; (g) Tooling (initial production facilities, factory support equipment) including its planning, design and fabrication; (h) Administrative engineering; (i) The joining or mating and final assembly of level 3 equipment elements to form a complete prime mission equipment when the element is performed at the manufacturing facility; (j) Integration of software (including the loading and verification of firmware); and, (k) The conduct of production acceptance testing. This IAT element also includes all spacecraft testing chambers (vacuum, shock, thermal, etc.) and costs associated with systems engineering activities related to the integration of spacecraft bus subsystems. The IAT element excludes all system engineering/program management/data (SE/PM/Data) and system test and evaluation (ST&E) associated with the overall system.

### 1.2.2 Spacecraft

The spacecraft element refers to the principle operating space vehicle which serves as a housing or platform for carrying a payload and other mission-oriented equipment in space. This element includes, for example, structure, communications, power, attitude determination and control, and other equipment characteristic of a spacecraft bus. It also includes all design, development, production, and assembly efforts to provide the spacecraft bus as an entity.

### 1.2.3 Payload

The payload element refers to that equipment provided for special purposes in addition to the normal equipment integral to the spacecraft bus. It includes, for example, the

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sensor suite placed on board the vehicle, communications, instrumentation, telemetry equipment and other mechanisms that are specifically mission-oriented to collect data for future planning and projection purposes. Typical hardware normally includes, for example, associated multiple detector elements, calibration devices, sensor system electronics, sensor housing/equipment, and other sensor subsystems. This element includes software intrinsic to specific sensors, along with the design, development, production, and assembly efforts for each sensor. This element also includes costs associated with systems engineering efforts to integrate payload sensors in regard to field of vision analyses, bus impacts, and electromagnetic interference. All effort directly associated with the integration, assembly, test and checkout of these elements into the space segment is excluded.

### **1.2.3.1 Visible Infrared Imager Radiometer Suite (VIIRS)**

This element refers to the design, development, and production of all hardware and flight software components of the VIIRS to include any engineering development, protoflight, and production units. It includes the design, fabrication, assembly, and test of individual hardware and flight software components and/or modules plus the integration, assembly and test efforts required to produce fully integrated and tested sensor suite units. All necessary efforts to develop, produce, and test the required sensor algorithms are also included along with the activities associated with all required special test equipment, special tooling, production planning, systems engineering, and program management.

### **1.2.3.2 Conical Microwave Imager Sounder (CMIS)**

This element refers to the design, development, and production of all hardware and flight software components for complete units of the CMIS to include any engineering development, protoflight, and production units. It includes the design, fabrication, assembly, and test of individual hardware and flight software components and/or modules plus the integration, assembly and test efforts required to produce fully integrated and tested sensor suite units. All necessary efforts to develop, produce, and test the required sensor algorithms are also included along with the activities associated with all required special test equipment, special tooling, production planning, systems engineering, and program management.

### **1.2.3.3 Cross-Track IR Sounder (CrIS)**

This element refers to the design, development, and production of all hardware and flight software components for complete units of the CrIS to include any engineering development, protoflight, and production units. It includes the design, fabrication, assembly, and test of individual hardware and flight software components and/or modules plus the integration, assembly and test efforts required to produce fully integrated and tested sensor suite units. All necessary efforts to develop, produce, and test the required sensor algorithms are also included along with the activities associated with all required special test equipment, special tooling, production planning, systems engineering, and program management.

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### **1.2.3.4 Advanced Technology Microwave Sounder (ATMS)**

This element refers to the design, development, and production of all hardware and flight software components for complete units of the ATMS to include any engineering development, protoflight, and production units. Design and development specifically refers to unique efforts that may be required for Flight Unit #2 and beyond. Design, development and production of Flight Unit #1 are Government Furnished (Flight Unit 1 is the NPP instrument). It includes the design, fabrication, assembly, and test of individual hardware and flight software components and/or modules plus the integration, assembly and test efforts required to produce fully integrated and tested sensor suite units. All necessary efforts to develop, produce, and test the required sensor algorithms are also included along with the activities associated with all required special test equipment, special tooling, production planning, systems engineering, and program management.

### **1.2.3.5 Ozone Mapper and Profiler Suite (OMPS)**

This element refers to the design, development, and production of all hardware and flight software components for complete units of the OMPS to include any engineering development, protoflight, and production units. It includes the design, fabrication, assembly, and test of individual hardware and flight software components and/or modules plus the integration, assembly and test efforts required to produce fully integrated and tested sensor suite units. All necessary efforts to develop, produce, and test the required sensor algorithms are also included along with the activities associated with all required special test equipment, special tooling, production planning, systems engineering, and program management.

### **1.2.3.6 Global Positioning System Occultation Sensor (GPSOS)**

This element refers to the design, development, and production of all hardware and flight software components for complete units of the GPSOS to include any engineering development, protoflight, and production units. It includes the design, fabrication, assembly, and test of individual hardware and flight software components and/or modules plus the integration, assembly and test efforts required to produce fully integrated and tested sensor suite units. All necessary efforts to develop, produce, and test the required sensor algorithms are also included along with the activities associated with all required special test equipment, special tooling, production planning, systems engineering, and program management.

### **1.2.3.7 ADCS (Government Furnished)**

This element is the Advanced Data Collection System (ADCS) transponder (e.g., ARGOS-3) which is provided as GF (with the exception of the antennas and cables). The ARGOS system is an international surface data collection system that is managed by France.

### **1.2.3.8 SARSAT (Government Furnished)**

This element is the Search and Rescue Satellite Aided Tracking (SARSAT) instruments that are provided as GF (with the exception of the antennas). The SARSAT system is

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part of the COSPAS-SARSAT international search and rescue system that is managed by representatives of the U.S., Canada, France, and Russia. The SARSAT beacons and LUTs will be supplied, implemented, operated, and maintained by local authorities.

**1.2.3.n Other Payloads** (SESS, TSIS, ERBS, Radar Altimeter, Survivability Sensor, and APS, etc.)

This element refers to the design, development, and production of all hardware and flight software components for complete units of any additional payloads that will be procured and or modified to satisfy NPOESS requirements to include any engineering development, protoflight, and production units. It includes the design, fabrication, assembly, and test of individual hardware and flight software components and/or modules plus the integration, assembly and test efforts required to produce fully integrated and tested sensor suite units. All necessary efforts to develop, produce, and test the required sensor algorithms are also included along with the activities associated with all required special test equipment, special tooling, production planning, systems engineering, and program management.

### **1.3 Command, Control, and Communications Segment (C3S)**

Includes all hardware and software required for command and control, data routing and retrieval, satellite simulation and the C3 segment level integration, assembly, test, and configuration management. The functions of the C3S are to transfer commands from the mission management centers to the satellite; to receive telemetry data from the satellite and transfer such data to the mission management centers; to receive stored mission data from the satellite and transfer it to the IDPS; to provide voice communications between the elements of the C3S; and to provide a mechanism for on-orbit satellite test and evaluation. The C3S includes costs for the ground hardware/software equipment used to communicate between control and tracking facilities, monitor the health and status of satellites, command the satellite's hardware and adjust the satellite's orbit as required for health or mission purposes and provide for overall enterprise management. Recurring costs to operate and sustain the C3S are included in WBS 1.14 Operations & Support. Also includes the Flight Vehicle Simulator consisting of hardware and software elements that provide a high-fidelity dynamic simulation of all spacecraft subsystems and mission sensors.

### **1.4 Interface Data Processing Segment (IDPS)**

Provides for processing of mission data. The functions of the IDPS are to ingest data transferred from the C<sup>3</sup> Segment (global, multispectral data and other specialized meteorological, oceanographic and solar-geophysical data); process these data into environmental products, and make them available to national environmental and weather centers. IDPS includes costs for the ground hardware/software equipment used for data processing along with segment level integration, assembly, test, configuration management and algorithm development capability. Processing for field terminals is covered in WBS 1.16. Recurring costs to operate and sustain the IDPS are included in WBS 1.14 Operations & Support.

## **1.5 System Engineering/Program Management/Data Segment**

This segment is defined as the systems engineering, system integration, configuration management and business management of all segments of the NPOESS system. SE/PM encompasses the overall planning, directing, and controlling of the definition, development, and production of the NPOESS system and major segments, including logistics engineering and management. SE/PM/Data effort that can be associated specifically with the equipment (hardware/software) element, e.g., spacecraft bus, payload, etc., is excluded. This segment also includes costs associated with the contractor production of government-required documentation. Excludes Government Program Office costs, which are included in WBS 1.15.

## **1.6 Systems Test and Evaluation**

This element includes Developmental Test and Evaluation (DT&E), Operational Test and Evaluation (OT&E), and Combined Test and Evaluation. DT&E is conducted to demonstrate that the engineering design and development process is complete, that design risks have been minimized, and that the integrity of the segment interfaces and the overall system design and performance is ensured. The tests will include both functional and environmental tests. The purpose of OT&E is to verify that NPOESS is operationally effective and suitable. OT&E is conducted by AFOTEC and supported by the EMD/Production contractor. OT&E will ensure that NPOESS will meet or exceed operational performance requirements. The Initial Operational Test and Evaluation (IOT&E) will assess the operational effectiveness and suitability of the NPOESS and provide feedback on operational issues and capabilities. OT&E will be conducted incrementally to provide an early assessment of operational capability. Combined Testing is defined as simultaneous testing conducted by the development and operational testers when cost, schedule, or test item availability dictates that they must share test facilities, resources, and data. NPOESS will utilize combined testing to the fullest extent possible in order to reduce costs and the time required to conduct all necessary testing. Events, staffing and activities for all segments are defined in the NPOESS TEMP.

## **1.7 Systems Training**

System training is defined as the training services, devices, accessories, aids, equipment, and parts used to facilitate instruction through which personnel will acquire sufficient concepts and skills to operate and maintain the system with maximum efficiency. System Training includes all effort associated with the design, development, and production of deliverable training equipment as well as the execution of initial training services. System Training excludes the overall planning, management, and task analysis function inherent in WBS 1.5 SE/PM/Data.

## **1.8 Peculiar Support Equipment (PSE)**

Includes the design, development, and production of those items and associated software required to support and maintain the NPOESS while not directly engaged in the performance of its mission, and which have application peculiar to a given material item. PSE includes, for example, vehicles, equipment, tools, etc., used to fuel, service, transport, hoist, repair, overhaul, assemble, disassemble, test, inspect, or otherwise maintain the mission equipment. It also includes any production of duplicate or modified factory test or tooling equipment delivered to the USG for use in maintaining the system

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(factory test and tooling equipment initially used by the contractor in the production process but subsequently delivered to the USG will be included as cost of the item produced). It also includes any additional equipment or software that will be required to maintain or modify the software portions of the system. PSE specifically excludes the overall planning, management and task analysis functions inherent in the work breakdown structure element systems engineering /program management, and the common support equipment presently in the USG inventory or commercially common within industry which is bought by the using activity and not by the program office.

### **1.9 Common Support Equipment (CSE)**

Refers to those items required to support and maintain the system or portions of the system while not directly engaged in the performance of its mission, and which are presently in inventory for the support of other systems. CSE includes all efforts required to assure the availability of this equipment for support of the particular material item. CSE also includes the acquisition of additional quantities of this equipment if caused by the introduction of the material item into operational service.

### **1.10 Flight Support Operations & Service (FSOS)**

The flight support operations element consists of mission unique integration, LV/SV mate, processing, launch, and initial on-orbit checkout. The scope includes SV personnel and material at the launch site and satellite operations center(s) supporting launch processing and post-launch orbit insertion systems testing. The flight operations and orbital checkout support element refers to the personnel and material required to operate individual mission control centers and to perform ground command and control associated with the spacecraft bus and payloads during the launch phase. It also includes effort and materials to conduct equipment receiving and checkout at the launch site, pre- and post-flight data reduction and analysis, any pre launch flight control/mission control planning for the spacecraft bus and payloads. In addition, this element covers those required activities performed at the primary contractor facility, the satellite operations center and other locations as assigned to process the NPOESS spacecraft bus and payloads either from factory shipment or removal from storage to launch. The launch support period begins at either the spacecraft's departure from the contractor facility, or its removal from storage, goes through lift off and ends with the completion of post launch activities and early orbit support. This segment also includes the preflight operations and services both subsequent to production and/or storage and during launch of the spacecraft bus and payloads plus launch support element, e.g., payload processing facilities, real property installed equipment and aerospace ground equipment not included in WBS 1.1 Launch Segment. This element excludes calibration/validation, which will be included in WBS 1.6.

#### **1.10.1 Mission Unique Integration**

This element refers to functions performed by the SVC to accomplish LV/SV mission unique integration (MUI). MUI normally occurs only on the first launch but may be required for subsequent launches due to mission, spacecraft, or payload changes that could impact the booster, payload interface, or launch site facilities. The scope varies greatly and can impact any or all SV and/or LV systems.

## 1.10.2 Mate, Checkout & Launch

This element refers to the standard recurring SV receipt, inspection, test, integration and mate, integrated testing, and launch support services performed by the Satellite Vehicle Contractor(s) (SVC) at the launch site.

## 1.10.3 On-orbit Support

The flight support operations and orbital checkout refers to the personnel and material at the primary contractor facility, the satellite operations center and other locations required to perform ground command and control associated with the spacecraft bus and payloads during the launch processing and post-launch orbit insertion. It excludes pre-launch and launch activities at the launch site. Flight support operations begins with the spacecraft's departure from the contractor facility and ends after the spacecraft and payloads have been verified operational ready.

## 1.11 Storage

Storage refers to those activities required to hold portions of the spacecraft bus and payloads while awaiting use of the system. These periods of holding include those resulting from schedule changes and/or technical problems exogenous to the portion of the spacecraft bus and payloads being stored, prepared for storage, or recovered from storage. This item also includes relocating the spacecraft bus and payloads from one storage area to another storage area when necessitated by mission requirements.

## 1.12 Industrial Facilities

Refers to the construction, conversion or expansion of industrial facilities for production, inventory and contractor depot maintenance required when that service is for the specific system; real estate and preparation of system peculiar industrial facilities for production, inventory, depot maintenance and other related activities; production equipment acquisition, modernization or transferal of equipment for the particular system (pertains to government owned and leased equipment under facilities contract). This element also includes industrial facilities for hazardous waste management to satisfy environmental standards.

## 1.13 Initial Spares & Repair Parts

This segment includes the purchase of components, assemblies and subassemblies used for initial replacement purposes in the Space, C<sup>3</sup>S, and IDPS equipment end items. It also includes repairable spares and spare parts required as initial stock to support and maintain the fielded system or systems during the first year **after IOC**. It does not include the purchase of entire instruments, sensor suites or other major subsystems.

## 1.14 Operations & Support

Includes the recurring costs for the personnel, material and services required to operate and maintain all operational segments of the NPOESS system. The following phases apply to O&S for all segments:

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Phase 1 – Initial contractor O&S from completion of segment testing for NPP components through IOC.

Phase 2 – Government and Contractor O&S not earlier than IOC through the end of the program.

### **1.15 US Government Program Office (Government Furnished)**

This element includes the NPOESS Integrated Program Office under the direction of a System Program Director (SPD) that will carry out the program or project. This involves the business and administrative planning, organizing, directing, coordinating, controlling, and approval actions designated to accomplish overall program objectives.

### **1.16 Field Terminal Segment**

This element provides for Raw Data Record (RDR) and Environmental Data Record (EDR) processing at High Rate Data and Low Rate Data User Field Terminals. The functions of the Field Terminal Segment are (1) to accept Intermediate Frequency (IF) data from the User Field Terminal Antenna and Radio Frequency (RF) equipment, (2) to process these data into RDRs and EDRs, and (3) to transfer the processed data to the User Field Terminal. NPOESS field terminals will be located around the world in fixed and mobile configurations. A notional field terminal is composed of an antenna with associated RF equipment, a receiver, a front-end processor (which will run the NPOESS provided FTS software), and a database management system; all of these functions are similar to those of the Central user element. The Field Terminal Segment includes costs for field terminal unique software only. NPOESS will develop hardware requirement and interface specifications, but equipment purchase is the responsibility of the user. Recurring software maintenance costs are included in WBS 1.14 Operations & Support. First time training on each of the terminal types is included in WBS 1.7, System Training.

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**Annex B to Section L**  
**04701-02-R-XXXX**

**Past Performance Questionnaire**

**NPOESS EMD/Production**

**NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE  
SYSTEM (NPOESS)**

**(DATE)**

(a) The offeror shall request that each party for whom it has performed work similar to the work contemplated by this solicitation submit a past and present performance questionnaire to the Government (this may include work done as a prime contractor or subcontractor on a Government contract, or work wholly within the commercial sector). The questionnaire is available electronically in the NPOESS electronic library at <http://npoesslib.ipo.noaa.gov/>. Questionnaires shall also be requested from the customers of each of its primary subcontractors, teaming partners, and/or joint venture partners.

(b) The offeror is solely responsible for ensuring that questionnaires are submitted in time for use in the evaluation process, and shall make every effort to achieve this objective. Questionnaires are due five working days after the date established for submission of Vol. III, Past and Present Performance.

(c) An offeror's request to another entity for completion of a questionnaire should—

(1) include a statement that completion of the questionnaire is needed for the offeror's participation as a competitor in a formal source selection being conducted by the NPOESS Integrated Program Office;

(2) identify the contracting officer as Mr. John M. Inman, 301/427-2084 x162, [john.inman@ipo.noaa.gov](mailto:john.inman@ipo.noaa.gov);

(3) require that questionnaires and a floppy disk be submitted directly to the Government, and not via the offeror, to NPOESS IPO (Attn: Source Selection Recorder), Centre Building, 8455 Colesville Road, Suite 1450, Silver Spring MD 20910;

(4) specify the date by which the questionnaire should be delivered;

(5) specify that envelopes should be marked "to be opened by addressee only—source selection sensitive see FAR 3.104—for official use only";

(6) indicate that fax transmission (301) 415-0384 is acceptable after calling the contracting officer or the source selection recorder at (301) 415-0396, but that both paper and electronic submissions are desired; and

(d) The Government desires that the questionnaires be completed by those with most knowledge of the subject contracts, and offerors are best served by requesting questionnaires from individuals with the most knowledge. For Government contracts, the following order of precedence is suggested: Government program or project manager, Government procuring contracting officer or negotiator, and Government administrative contracting officer.

(e) The offeror shall maintain a Past/Present Performance Questionnaire tracking record (a sample is available in the NPOESS electronic library at <http://npoesslib.ipo.noaa.gov>) that documents all exchanges between and follow-ups made to each of the POCs from whom a questionnaire has been requested. An initial Past/Present Performance Questionnaire tracking record shall be submitted with the offeror's Past/Present Performance volume under Vol. III, Sect. 2. A final tracking record shall be submitted under separate cover to the contracting officer simultaneous with submission of the remainder of the proposal. This exchange/contact between the offeror and its POCs shall cease upon submission of the offeror's proposal to the government. The tracking record should be submitted in electronic format as well as printed form. The Government may conduct follow-up discussions with any of the people identified in the tracking records or in the offeror's Past/Present Performance volume. The Government may obtain other information by sending out additional questionnaires or through other sources.

**Past Performance Questionnaire Tracking Record**  
**[TO BE ACCOMPLISHED BY OFFEROR]\***

[illegible]

<b>Past Performance “CONTACT DATA Sheet”</b> <b>(TO BE COMPLETED BY PERSON FILLING SURVEY)</b>
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**Background Information (for person filling out the survey):**

<b>First Name:</b>				
<b>Last Name:</b>				
<b>Rank:</b>				
<b>Title:</b>				
<b>Organization:</b>				
<b>Phone:</b>				
<b>Fax:</b>				
<b>E-Mail Address:</b>				
<b>Dates of involvement: (6 month minimum)</b>	<b>From:</b>		<b>To:</b>	

**Contract Information (for the contract involved):**

<b>Company:</b>					
<b>Division:</b>					
<b>Contract #:</b>					
<b>Dollar Value:</b>	(Current Dollar Value) \$		<b>Million</b> <input type="checkbox"/>	<b>Thousand</b> <input type="checkbox"/>	
<b>Work:</b>	<b>Complete</b> <input type="checkbox"/>	<b>Ongoing</b> <input type="checkbox"/>			
<b>Award date:</b>					
<b>End Item Description(s):</b>	(In addition to describing end item deliverable, please indicate any significant products delivered or services rendered in the past five years)				
<b>Major Design Milestones</b>	(Ex: Preliminary or Critical Design Reviews - list only those which have occurred in the past 5 years)				
<b>Significant Testing Milestones</b>	(Ex: Developmental, Acceptance, Integration, Operational, Flight Tests - list only that which has occurred in the past 5 years)				
<b>Target Cost:</b>	<b>On</b> <input type="checkbox"/>	<b>Above</b> <input type="checkbox"/>	<b>Below</b> <input type="checkbox"/>	<i>By:</i>	<b>%</b>
<b>Schedule:</b>	<b>On</b> <input type="checkbox"/>	<b>Ahead</b> <input type="checkbox"/>	<b>Behind</b> <input type="checkbox"/>	<i>By:</i>	<b>Months</b>

### Past Performance Questionnaire

Based on your knowledge of the contract identified above, please provide your assessment of how well the contractor performed on each of the following topics.

1. System Performance. The focus of the section is to determine how well an offeror has been able to match a proposed system configurations, Concept of Operations (CONOPS), and system level performances to the original program requirements.

2. Segment Design. The focus of this section is to determine how well an offeror has been able to develop designs that achieve predicted performance.

3. System Engineering, Integration & Test, and Planning. The focus of this section is to determine how well an offeror has been able to adequately develop overall systems engineering, integration, and testing approaches for proposed programs and to determine the adequacy, consistency, and flexibility of an offeror's program planning process over the entire period of a contract.

4. Management and Organization. The focus of this section is to determine the adequacy of an offeror's past approach to organizing, staffing and managing programs.

5. Cost. The focus of this section is to determine the adequacy of an offeror's ability to manage program costs.

It is very important to keep in mind that only performance in the *past five years* is relevant.

### Rating Definitions

The following five adjectival ratings comprise the Common DoD Assessment Rating System. Note that DoD's assessment rating system recognizes the contractor's resourcefulness in overcoming challenges or problems that arise in the context of contract performance.

**Exceptional (Dark Blue).** Performance meets contractual requirements and exceeds many to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor were highly effective.

**Very Good (Purple).** Performance meets contractual requirements and exceeds some to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the contractor were effective.

**Satisfactory (Green).** Performance meets contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.

**Marginal (Yellow).** Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.

**Unsatisfactory (Red).** Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains serious problem(s) for which the contractor's corrective actions appear or were ineffective.

(Please check the appropriate rating and **provide explanatory comments, at minimum for Exceptional, Marginal, and Unsatisfactory assessments.**)

## Part I. MISSION CAPABILITY

### A. Management and Organization

1. Total System Performance Responsibility [TSPR] effectiveness - how well the contractor managed and executed a program for which it had total responsibility.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
2. Ability to plan and implement a process for interacting with other contractors.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
3. Ability to consider end user needs during all stages of contract.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
4. Ability to work with government program office.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
5. Ability to plan and execute an effective incremental risk mitigation program from development to production to operation.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
6. Overall capabilities and expertise of personnel working on project (in terms of expertise, continuity, and relevancy).					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

7. Ability to effectively staff and organize team working on project.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
8. Ability to meet major milestones and deliver product or service on schedule					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

## B System Performance

1. Ability to meet program requirements					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
2. Ability of system to meet lifetime requirements (operating lifetime, storage, life cycle).					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
3 Ability of demonstrations and simulations to predict system performance requirements as verified by (Check all that apply):					
		Flight Tests	Ground Tests	Simulations	
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
4. Impact trade process on final system performance					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

5. Ability to design an efficient architecture that accounts for all aspects of the user operational environment.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

### C. Segment Design

1. Overall capabilities to design, develop, manufacture, test and deliver, satellite system, large data analysis, and/or ground distribution networks.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
2. Ability to accommodate performance enhancements and/or technology assessment, development, and insertion					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
3. Space Segment - Ability to flow space segment specifications from system specifications. (Space Segment refers to any platform, sensor, or component in orbit)					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
4. Space Segment - Ability of space segment design to meet parameters of space segment specifications					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
5. Space Segment - Ability to respond to requirement changes and accommodate future risk reduction plans					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

6. C <sup>3</sup> Segment - Ability to flow C <sup>3</sup> segment specifications from system specifications. (C <sup>3</sup> Segment refers to all functions required for mission management, day-to-day operations and state-of-health monitoring of any component within the Space Segment)					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
7. C <sup>3</sup> Segment - Ability of C <sup>3</sup> segment design to meet parameters of C <sup>3</sup> segment specifications					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
8. C <sup>3</sup> Segment - Ability to respond to requirement changes and accommodate future risk reduction plans					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
9. Ground Data Processing Segment - Ability to flow Ground Data Processing segment specifications from system specifications					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
10. Ground Data Processing Segment - Ability of Ground Data Processing segment design to meet parameters of Ground Data Processing segment specifications					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
11. Ground Data Processing Segment - Ability to respond to requirement changes and accommodate future risk reduction plans					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

<b>12. Field Terminal Segment - Ability to flow field terminal segment specifications from system specifications. (Field Terminal Segment refers to any receivers used by deployed/remote units to obtain data in real time.)</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>13. Field Terminal Segment - Ability of Field Terminal segment design to meet parameters of Field Terminal segment specifications</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>14. Field Terminal Segment - Ability to respond to requirement changes and accommodate future risk reduction plans</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

#### D. System Engineering & Planning

<b>1. Ability to understand the user requirements</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>2. Ability to identify all significant technical, cost, and schedule constraints/risks early in program.</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>3. Adequacy of Testing Program in accomplishing goals of program</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

<b>4. Ability to design a system architecture using cost-performance trade studies and analysis.</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>5. Effectiveness of system engineering capabilities including requirements flowdown to various segments and components of the system and ability to trace functional threads.</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>6. Effectiveness of software system engineering capabilities including requirements flowdown to appropriate segments and components of the system and ability to trace functional threads.</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>7. Appropriateness of facilities (production, integration, test, etc.) and personnel (quantity, training, capability, etc.).</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>8. Completeness of system documentation such as system/subsystem performance specifications (for example, the extent to which documentation enabled thorough assessment of final delivered product)</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>9. Completeness and Reasonableness of Integrated Master Plan</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
<b>10. Realism, Reasonableness and Completeness of Program Schedule/Integrated Master Schedule</b>					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

11. Adequacy of support plans (e.g. Risk Management)					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

## Part II. COST

1. Ability to anticipate cost					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
2. Ability to use a validated cost/schedule control system such as Earned Value management reporting.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					
3. Ability to provide timely accurate financial reports and forecasts.					
Exceptional (Please Comment)	Very Good	Satisfactory	Marginal (Please Comment)	Unsatisfactory (Please Comment)	Not Applicable
Comment:					

### Performance Survey

The foregoing inquiry should have allowed you to provide us with a reasonable assessment of the way in which the subject contractor has performed on recent contracts. The following questions are intended to allow you an opportunity to expand on your evaluation and provide us with a more comprehensive understanding of company performance. Completion of this segment of the Questionnaire is optional.

### PROGRAM EXECUTION

1. Were products generally delivered when required contractually? If not, was the delay the result of contracting agency or contractor actions?

2. If schedule relief was provided by contract modification, did it result from scope change or from an overrun condition?

### COST

1. Did the total cost exceed initial contract value by more than 10%?                      Yes                      No  
If so, by how much?

2. What proportion of increased costs were attributable to contracting agency actions (added scope, directed schedule mods, etc), rather than to development problems for which the contractor was responsible?

### OVERALL

1. If Award Fee contracts were used for the procurement, what percentage of available fee did the contractor earn in the periods before and following completion of the Preliminary Design Review?  
Critical Design Review?

2. What is considered to be an average percentage award fee bestowed by your organization for similar contracts?

3. Knowing what you do today, would you award this contract to this contractor again?                      Yes                      No

4. If you have any other comments that you would like to make (e.g. especially noteworthy performance, how to improve this survey, etc.) include them here also. Continue on another sheet, if necessary.

**Exhibit A  
to  
04701-02-R-XXXX**

**Contract Data Requirements List (CDRL)**

**NPOESS EMD/Production**

**NATIONAL POLAR-ORBITING OPERATIONAL ENVIRONMENTAL SATELLITE  
SYSTEM (NPOESS)**

**(DATE)**

## CONTRACT DATA REQUIREMENTS

### Introduction

The offeror shall propose the recommended contractual data required for delivery to the Government in response to this RFP. The offeror shall prepare a Contract Data Requirements List using DD Form 1423 format. In addition, the contractor shall identify all other data being made available to the government and a proposed method of availability (such as via a data accession list). The government's interest in subjects and/or types of data are reflected in the following tables. This list is not intended to be all-inclusive.

Earned value, contract funding, schedule and cost data should be provided to the government using electronic data interchange (EDI) in accordance with the American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12 uniform standards. The transaction set [839/806/196] will be used to exchange these data. Conform to the data format requirements specified in the approved Federal Implementation Convention for this (these) transaction set(s), version release 004010 of the ANSI ASC X12 standards.

All data shall be provided to the government using electronic data interchange whenever possible via a link between the Government's and Contractor's Management Information System or via a Contractor-maintained Electronic Bulletin Board.

**The offeror shall provide data in contractor format** unless required by a specific data standard.

**Contract Data Requirements List**

Item	Title	Date Specific	Comments
1.	Technical Data Packages for major demonstrations, simulations, and architectures		Use MIL-DTL-31000A as guidance.
2.	Configuration Management Plan	IBR	Use DI-CMAN-80858A as guidance.
3.	DOC Form 33, 34 and 35 for Transmitter, Receiver and Antenna Characteristics	Awd + 6 mos	
4.	NTIA Stage 3 and Stage 4 Submittal (Certification of Spectrum Support DOC Form NTIA-44	Awd + 6 mos	Provide compliance document for SPS Stage 2 recommendations.
5.	ITU Advanced Publication Forms for Radio Frequency Assignment Plan	Launch – 5 yrs	
6.	Certification and Accreditation Document	90 days prior to NPP launch	Use DoDI 5200.40, DoD Information Technology Security Certification and Accreditation Process as the reference
7.	Security Implementation Plan	IBR	
8.	NPOESS System to External System Interface Control Documents.		Include interfaces to long term archives, NPP, field terminals, centrals, etc.; Government approval required
9.	Facility Master Plan	Awd + 4 mos	Plan shall identify facilities, describe essential characteristics and functional capabilities, assess the potential for their use, and develop long-term strategies for continued support of NPOESS through the use of supporting plans and studies. Supporting plans and studies are detailed documents, which will include, but are not limited to: Identification of the purpose and need for the proposed facilities and Description of the Proposed Action and Alternatives for NEPA compliance purposes. The deliverable must include physical and functional descriptions of all new facilities and ground-based equipment (including backup and alternative facilities) that would be acquired, installed, or constructed for the NPOESS program and the schedule for acquisition, installation, testing, and operation. Maps, charts, and photographs showing the locations of all fixed ground-based facilities must be included. Format should be AutoCAD for figures with text in MS Word.

## DRAFT

Item	Title	Date Specific	Comments
10.	Facility Drawings		Review construction drawings 90 days prior to construction. Deliver “as built drawings” 30 days after completion using electronic media.
11.	Test and Evaluation Program Plan(s)		Use DI-NDTI-81284 as guidance.
12.	Software Development Plan (SDP)		Contractor format with content as specified by IEEE J-STD-016-1995 is acceptable. Government approval of format and content is required. A required SDP Annex is the Software Capability Risk Mitigation Plan (SCRMP). SCRMP should identify all software team members and assessed CMM level. Should include plan for maintaining/improving CMM capability of all Team Members for life of NPOESS. Use DI-IPSC-81427A as guidance.
13.	Common Data Format Control Book	6 mos prior to NPP launch	Manual for users of NPOESS data (Centrals, field terminal users, and archive users). Updated as necessary for each NPOESS launch.
14.	Technical Manuals	Draft for NPP launch	
15.	Operations and Maintenance Manuals (CLIN 0200)	Draft 8 weeks prior to NPP Launch, Final for NPP launch	
16.	Operations and Maintenance Manuals for NPOESS (CLIN 0200)	Draft 8 weeks prior to NPOESS launch, Final for first NPOESS launch	Updated as necessary for each NPOESS launch or system upgrade.
17.	Operations and Maintenance Manuals for NPOESS (CLIN 2100)	Draft 1 Aug 2008, Final 1 Feb 2009. Update, if required, 6 mos prior to IOC	Updated as necessary for each NPOESS launch or system upgrade
18.	On orbit Operators Manual (CLIN 0200)	90 days prior to NPP launch to	Updated as necessary for each NPOESS launch or system upgrade
19.	On orbit Operators Manual (CLIN	6 mos prior to C1	Updated as necessary for each NPOESS launch or system

## DRAFT

Item	Title	Date Specific	Comments
	2100)		upgrade
20.	Data Accession List/Internal Data (DAL)	Monthly	Use DI-MGMT-81453 as guidance.
21.	Software User's Manual (SUM) and Computer System Operators Manual (CSOM) (CLIN 0200)	NPP – Draft 8 weeks prior to NPP Launch, Final for NPP launch	
22.	Software User's Manual (SUM) and Computer System Operators Manual (CSOM) (CLIN 2100)	Draft – 1 Aug 2008, Final – 1 Feb 2009. Update, if required, 6 mos prior to IOC	
23.	Contract Funds Status Report (CFSR)	EOQ + 20CD	Provided by Government. See attached
24.	Contractor Cost Data Summary Report (CDSR) Form 1921	Top Level IMP Events	Provided by Government. See attached
25.	Functional Cost-Hour Report (FCHR), DD Form 1921-1	Top Level IMP Events	Provided by Government. See attached
26.	Progress Curve Report (PCR), DD Form 1921-2	Top Level IMP Events	Provided by Government. See attached
27.	Contractor Performance Report Formats 1-5, DD 2734	EOM + 20 CD	Provided by Government. See attached.
28.	Environmental, Safety and Health Program Plan	Awd + 90 days	Plan should address steps to comply with the following regulations as a minimum: Environmental Safety Suitability & Effectiveness AFI 63-1201, Environmental Safety Suitability & Effectiveness Plan; NEPA, 40 CFR 1500-1508; NOAA Administrative Order 216-6, AFI 32-7061; Environmental Review EO 12114, NOAA Administrative Order 216-6; AFI 327-61; and Pollution Prevention AFI 32-7080. Use DI-ENVR-81375 as guidance.
29.	Training Plan	IBRfor NPP, 1 Jul 2006 for NPOESS	Plan to provide training and develop course material
30.	Training Materials	90 days after	Contractor will provide training. Course material includes

## DRAFT

Item	Title	Date Specific	Comments
		exercising Option (CLIN 2100)	instructor lesson plans, student guides, overhead, etc. for initial and follow-on sustainment training
31.	Logistics Support Plan (CLIN 0200)	Draft - award + 90 days, Final 45 days after ILS Conference, updates as required.	Use DI-ILSS-80395 as guidance.
32.	Thermal models of the CrIS and VIIRS Instruments	NPP IRR – 4 months (Jan 2004)	
33.	NASTRAN Finite Element Models of the CrIS and VIIRS Instrument	NPP IRR – 4 mos (Jan 2004)	
34.	Calibration/Validation Plan		

**Data Accession List**

<b>Item</b>	<b>Title</b>	<b>Date Specific</b>	<b>Comments</b>
1.	NPOESS System Specification w/updates		
2.	NPOESS Sensor to Spacecraft Interface Control Documents		
3.	NPOESS Segment to Segment Interface Control Documents		
4.	Equipment Drawings		
5.	Parts Control Plan		
6.	NPOESS Space and Launch Support Segment Specifications		
7.	NPOESS C3 and IDP Segment Specifications (including NPP requirements)		
8.	Flight Activation Operations Plan		
9.	Missile System Pre-Launch Safety Plan/Accident Risk Assessment Report	2006	Air Force Eastern/Western Region Regulation 127-1
10.	Environmental Review Document	2004	EO 12114 NOAA Administrative order 216-6
11.	Environmental Due Diligence Assessment	TBD	Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) Sec. 120, DOC Real Property Management Manual, AFI 32-7066
12.	NPOESS Spacecraft Environmental Baseline Survey of Launch-Processing Site	2006	AFI 32-7061
13.	Health Hazard Analysis Reports	Throughout Program	AFI 91-202
14.	Safety Assessment Reports	Throughout Program	

DRAFT

15.	Hazardous Materials Handling Plan	2002	AFI 32-7086, EO 12856
16.	Raw Instrument Data Packets	NPP launch – 15 mos	
17.	IDPS RDR Test Data	NPP launch – 12 mos	

<b>CONTRACT DATA REQUIREMENTS LIST</b>						<b>Form Approved OMB No. 0704-0188</b>					
Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.											
A. CONTRACT LINE ITEM NO.			B. EXHIBIT <div style="text-align: center;">A</div>		C. CATEGORY: TDP _____ TM _____ OTHER <u>MISC</u>						
D. SYSTEM/ITEM NPOESS EMD Phase			E. CONTRACT/PR.NO XXXXXXXXXXXXXXXXXX		F. CONTRACTOR						
1. DATA ITEM NO. A023		2. TITLE OF DATA ITEM Contract Funds Status Report (CFSR)				3. SUBTITLE NPOESS EMD CFSR					
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-81466/T			5. CONTRACT REFERENCE (FILL-IN)			6. REQUIRING OFFICE IPO/ADA					
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED		10. FREQUENCY Quarterly		12. DATE OF FIRST SUBMISSION BLK 16					
8. APP CODE N		11. AS OF DATE F		13. DATE SUBSEQUENT SUBMISSION BLK 16		14. DISTRIBUTION					
16. REMARKS  <b>Block 4</b> Para 10. A reconciliation of the CFSR and CPR shall be submitted as an attachment to the CFSR. Each submission shall: <div style="margin-left: 20px;"> a) Contain a separate page for each fiscal year (FY) of funds obligated on contract, by CLIN and appropriation.  b) Contain a total page for all CLINs, appropriations and FYs.  c) CFSR data shall be reconciled to the Government's FY end of 30 September, if the contractor's FY end does not coincide with the Government's.  d) Report shall contain forecast by month for the next six months, by quarter for the remaining FY, and by year for the remaining FYs.  e) The CFSR shall be submitted electronically each quarter. </div> <b>Block 11</b> Last day of the contractor's most current accounting period.  <b>Block 12</b> Submit not later than 5th calendar day of the month after the close of the first accounting period following contract award  <b>Block 13</b> Submit not later than the 24th calendar day of the month.  <b>Block 14</b> Paragraph b. Transmittal letter only required for PCO copy.						a. ADDRESSEE		b. COPIES		BLK 16	
						Draft		Final			
						Reg		Rep			
						1		1		0	
						0		1		0	
						0		1		0	
						0		1		0	
						1		2		0	
G. PREPARED BY			H. DATE		I. APPROVED BY			J. DATE			
17. PRICE GROUP		18. ESTIMATED TOTAL PRICE				Page <u>1</u> of <u>1</u> Pages					

DD FORM 1423-1, JUN 90 (COMPUTER GENERATED) Previous editions are obsolete

<div> <div>CONTRACT DATA REQUIREMENTS LIST</div> <div> <div>Form Approved</div> <div>OMB No. 0704-0188</div> </div> </div>										
<div>Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.</div>										
A. CONTRACT LINE ITEM NO.			B. EXHIBIT		C. CATEGORY:					
			A		TDP_____ TM_____ OTHER <u>MISC</u>					
D. SYSTEM/ITEM			E. CONTRACT/PR.NO			F. CONTRACTOR				
NPOESS EMD Phase			XXXXXXXXXXXX							
1. DATA ITEM NO.		2. TITLE OF DATA ITEM				3. SUBTITLE				
A024		Cost Data Summary Report (CDSR), DD Form 1921				NPOESS EMD CDSR				
4. AUTHORITY (Data Acquisition Document No.)			5. CONTRACT REFERENCE			6. REQUIRING OFFICE				
DI-FNCL-81565/T			(FILL-IN)			IPO/ADA/Program Control				
7. DD 250 REQ	9. DIST STATEMENT		10. FREQUENCY		12. DATE OF FIRST SUBMISSION		14. DISTRIBUTION			
LT	REQUIRED		BLK 16		BLK 16					
8. APP CODE			11. AS OF DATE		13. DATE SUBSEQUENT SUBMISSION		a. ADDRESSEE		b. COPIES	
N	F		BLK 16		BLK 16				BLK 16	
<div>16. REMARKS</div> <div> <div>Block 4 (cont)</div> <div>Reporting levels shall be in accordance with the Contract Cost Data Reporting Data Plan (CCDRDP), pages 2 through 4 of CDRL A024, and the CWBS. The approved CCDRDP will be provided to the contractor 30 days after contract award. The contractor will map the SWBS Annex A to Section L reporting levels to the CWBS no later than 60 days after contract award.</div> <div>Block 10, 11, 12, &amp; 13</div> <div>Submissions shall be prepared in accordance with the approved CCDRDP provisions, the WBS data dictionary and the CCDR manual. The CCDR Manual may be obtained from the CCDR WEB site at <a href="http://ccdr.pae.osd.mil">http://ccdr.pae.osd.mil</a>. CCDR data is still required when this procurement becomes a firm fixed price contract.</div> <div>Block 14 (cont)</div> <div>Submissions to the addressees shall be prepared in accordance with the approved CCDRDP provisions for CCDR Report Media.</div> </div>							IPO Program Control	0	1	0
							PCO	0	1	0
							OSD/PA&E -CCDR PO	0	1	0
							15. Total	0	3	0
G. PREPARED BY			H. DATE		I. APPROVED BY			J. DATE		
17. PRICE GROUP			18. ESTIMATED TOTAL PRICE			Page <u>1</u> of <u>3</u> Pages				

**NPOESS EMD Phase  
Contractor Cost Data Reporting (CCDR) Data Plan**

This plan describes the requirements of the contractor cost reporting system for the NPOESS EMD contract.

The contractor shall furnish the cost data reports described below. The table in Sensor Work Breakdown Structure (SWBS) in Annex A to Section L of the CFI details the proposed work breakdown structure (WBS) elements and identifies the proposed frequency of reporting for each WBS element. The WBS element dictionary is also contained the Annex A to Section L of the CFI.

The latest version of the Contract Cost Data Reporting (CCDR) Manual, located at the CCDR WEB site (<http://ccdr.pae.osd.mil>) provides the specific instructions presented in this plan and provides the guidance for cost reporting of the reports listed below.

**Work Breakdown Structure.**

The work breakdown structure (WBS) will be the central mechanism for describing this program's content. MIL-STD-881B, "Work Breakdown Structures for Defense Materiel Items," serves as the basis for developing the WBS. Additionally, the IPO has identified specific reporting elements based on management interest in cost, risk and technology. The contractor shall deliver a contract WBS to the Government that represents the entire effort for the contract as specified by this contract. The contractor is free to extend WBS elements below the agreed upon reporting levels to reflect how the work will be performed and managed. If the contractor does not provide under this contract any WBS element(s) listed, the Contractor should indicate that element with an "NA" (Not Applicable) on the initial report and the WBS element may be omitted from subsequent submissions. However, if during the performance of this contract the WBS element becomes applicable, costs for the WBS element must be segregated and reported. The contractor shall deliver a contract WBS to the Government that represents the entire effort for the contract.

**CCDR Reporting.**

The requirement for cost data reports applies to each major contractor and/or subcontractor for all elements of the WBS for which each is wholly or partially responsible. The prime contractor is expected to collect and validate all submission from subcontractors and team members. This will include a separate submission from each partner in a teamed effort, as well as a submission for the team as a single entity.

All non-recurring tooling costs shall be reported as annotated for each WBS element at the element at the level incurred and not at the level of the agreed-to-billing to the government.

The prime contractor(s) or team(s) shall provide separate detailed purchased equipment listings of the CFE items for each level 3/4 element in the entire work breakdown structure. These lists shall provide the quantity, cost, and nomenclature for each item, and shall be submitted with the initial CCDR reports and at contract completion. To ensure proper traceability the summation of cost information each of these lists must equal those purchased equipment costs reported on the DD Form 1921-1 form.

The information provided for same-level WBS elements should sum to the Total Cost (or Hours) for the Total Project. For each WBS element for which a Functional Cost-Hour report (DD Form 1921-1) is indicated, separate submittals for Non-Recurring and Recurring are required in accordance with the CCDR Manual . A separate DD Form 1921-1 for Total is not required for those WBS elements which have only Non-Recurring or only Recurring Costs. For these WBS elements, on DD Form 1921-1 indicated a Non-Recurring/Total or Recurring/total should be submitted.

Each contractor shall submit the following three report formats:

1921 Report (Cost Data Summary Report). This report aggregates actual costs and units produced against WBS elements and categorizes them as either recurring or non-recurring costs. Overhead expenses

(e.g., general and administrative expenses, profit fee) are not included in the WBS element costs and are reported separately at the bottom of the report. (Reference CDRL A025)

1921-1 Report (Functional Cost Hour Report). This report displays actual costs by functional category (i.e., engineering, tooling, quality control, manufacturing, and other): each functional area is broken out by direct labor hours and cost category (e.g., direct labor, material, overhead). General and administrative (G&A) expenses and profits or fees are reported separately. (Reference CDRL A026)

1921-2 Report (Progress Curve Report) This report shows, for selected reporting elements only actual and estimated to complete recurring costs (only) by unit or lot. (Reference CDRL A027)

### **Reporting Frequency.**

The reporting frequency will be tied to significant events in the life of the contract. The contractor shall submit reports for elements denoted as "AR," "CC," or "A" on the frequency based on a mapping, which shall be approved by the Government, of the CWBS to the table listed in the Sensor Work Breakdown Structure (SWBS) in Annex A to Section L of the CFI. The contractor will make the initial submission within 90 days after contract award. Subsequent submissions will be made within 60 days of the following events: CDR, Test Readiness Review, Functional Configuration Audit, Physical Configuration Audit, EDU completion, Formal Qualification Review and final delivery of each flight unit. The contractor shall submit a final report within 60 days after all effort under the contract is completed.

- A: Annual Submission (End of Contractor's fiscal year)
- AR: As Required - reporting by milestones and major events
- CC: Contract Completion

### **CCDR Report Media.**

CCDR data will be prepared in accordance with Data Item Description of the specific report as listed in Block 4 of each of the CCDR data CDRLs and formatted as prescribed by the Electronic Data Interchange (EDI) transaction set 196 format. Information on this transaction set may be obtained from <http://www.antd.nist.gov/fededi> (select version 3050 or as a linked site at the CCDR site shown above). The contractor will submit EDI-formatted reports to by the following methods:

- a) through a commercial Value Added Network (VAN) to the CCDR-Project Office VAN account at the Defense Automatic Addressing Systems Center:
  - CCDR-Project Office
  - P.O. Box 005
  - 1111 Jefferson Davis Highway
  - Arlington, VA 22202
- b) to the IPO through normal IPO electronic data exchange procedures

A transmittal letter is only required for the PCO copy.

<b>CONTRACT DATA REQUIREMENTS LIST</b>						<b>Form Approved OMB No. 0704-0188</b>	
Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.							
A. CONTRACT LINE ITEM NO.		B. EXHIBIT <div style="text-align: center;">A</div>		C. CATEGORY: TDP _____ TM _____ OTHER MISC _____			
D. SYSTEM/ITEM NPOESS EMD Phase		E. CONTRACT/PR.NO XXXXXXXXXXXX		F. CONTRACTOR			
1. DATA ITEM NO. A025		2. TITLE OF DATA ITEM Functional Cost-Hour Report (FCHR), DD Form 1921-1			3. SUBTITLE NPOESS EMD FCHR		
4. AUTHORITY (Data Acquisition Document No.) DI-FNCL-81566/T		5. CONTRACT REFERENCE (FILL-IN)			6. REQUIRING OFFICE IPO/ADA/Program Control		
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED		10. FREQUENCY BLK 16		12. DATE OF FIRST SUBMISSION BLK 16	
8. APP CODE N		11. AS OF DATE BLK 16		13. DATE SUBSEQUENT SUBMISSION BLK 16		14. DISTRIBUTION	
						b. COPIES BLK 16	
						Final	
						Reg	
						R e p	
<b>16. REMARKS</b>  <u><b>Block 4 (cont)</b></u> Reporting levels shall be in accordance with the Contract Cost Data Reporting Data Plan (CCDRDP), pages 2 through 4 of CDRL A024, and the CWBS. The approved CCDRDP will be provided to the contractor 30 days after contract award. The contractor will map the SWBS Annex A to Section L reporting levels to the CWBS no later than 60 days after contract award.  <u><b>Block 10, 11, 12, &amp; 13</b></u> Submissions shall be prepared in accordance with the approved CCDRDP provisions, the WBS data dictionary and the CCDR manual. The CCDR Manual may be obtained from the CCDR WEB site at <a href="http://ccdr.pae.osd.mil">http://ccdr.pae.osd.mil</a> . CCDR data is still required when this procurement becomes a firm fixed price contract.  <u><b>Block 14 (cont)</b></u> Submissions to the addressees shall be prepared in accordance with the approved CCDRDP provisions for CCDR Report Media.				IPO Program Control PCO OSD/PA&E -CCDR PO		0 0 0	
				15. Total <b>_____</b>		0    3    0	
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17. PRICE GROUP		18. ESTIMATED TOTAL PRICE			Page <u>1</u> of <u>1</u> Pages		

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<b>DD FORM 1423-1, JUN 90 (COMPUTER GENERATED) Previous editions are obsolete</b>					<b>CONTRACT</b>		<b>Form Approved</b> <b>OMB No. 0704-0188</b>								
<b>DATA REQUIREMENTS LIST</b>															
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A. CONTRACT LINE ITEM NO.			B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER <u>MISC</u>										
D. SYSTEM/ITEM NPOESS EMD Phase			E. CONTRACT/PR.NO XXXXXXXXXXXX		F. CONTRACTOR										
1. DATA ITEM NO. A027		2. TITLE OF DATA ITEM Progress Curve Report (PCR), DD Form 1921-2			3. SUBTITLE NPOESS EMD PCR										
4. AUTHORITY (Data Acquisition Document No.) DI-FNCL-81567A/T			5. CONTRACT REFERENCE (FILL-IN)		6. REQUIRING OFFICE IPO/ADA/Program Control										
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED		10. FREQUENCY BLK 16		12. DATE OF FIRST SUBMISSION BLK 16		14. DISTRIBUTION							
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	Draft	Final													
		Reg	R e p												
16. REMARKS  <b>Block 4 (cont)</b> Reporting levels shall be in accordance with the Contract Cost Data Reporting Data Plan (CCDRDP), pages 2 through 4 of CDRL AO25, and the CWBS. The approved CCDRDP will be provided to the contractor 30 days after contract award. The contractor will map the SWBS Annex A Section L reporting levels to the CWBS no later than 60 days after contract award.  <b>Block 10, 11, 12, &amp; 13</b> Submissions shall be prepared in accordance with the approved CCDRDP provisions, the WBS data dictionary and the CCDR manual. The CCDR Manual may be obtained from the CCDR WEB site at <a href="http://ccdr.pae.osd.mil">http://ccdr.pae.osd.mil</a> . CCDR data is still required when this procurement becomes a firm fixed price contract.  <b>Block 14 (cont)</b> Submissions to the addressees shall be prepared in accordance with the approved CCDRDP provisions for CCDR Report Media.						IPO Program Control		0	1	0					
						PCO		0	1	0					
						OSD/PA&E -CCDR PO		0	1	0					
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A. CONTRACT LINE ITEM NO.		B. EXHIBIT <div style="text-align: center;">A</div>		C. CATEGORY: TDP _____ TM _____ OTHER MISC _____					
D. SYSTEM/ITEM NPOESS EMD Phas		E. CONTRACT/PR.NO XXXXXXXXXX		F. CONTRACTOR					
1. DATA ITEM NO. AO _____		2. TITLE OF DATA ITEM Cost Performance Report (CPR)		3. SUBTITLE NPOESS EMD CPR					
4. AUTHORITY (Data Acquisition Document No.) DI-MGMT-81466/T		5. CONTRACT REFERENCE (FILL-IN)		6. REQUIRING OFFICE IPO/ADA					
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED		10. FREQUENCY Monthly		12. DATE OF FIRST SUBMISSION BLK 16			
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						a. ADDRESSEE			
						Draft			
						Final			
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						R e p			
<b>16. REMARKS</b> <b>Block 4:</b> a. The CPR shall be submitted electronically, using the ANSI ASC X.12, Transaction Set 839 Version 3050. b. Report direct at the CWBS reporting level. c. A reconciliation of the CPR and the CFSR shall be submitted quarterly as an attachment to the CFSR. d. For Format 5, the contractor shall provide the top five (5) reporting level cumulative negative cost drivers in dollars (ranked in descending order of criticality). Each report shall discuss technical status of these drivers. This discussion shall include current status (changes since last month), potential impacts to cost or schedule (positive or negative), anticipated problem solution, and the current projected cost at completion for each element. Also, all of the cumulative negative cost variance drivers greater than negative 10% and \$100K should also be reported and discussed. In addition, the contractor should provide a narrative discussion of any positive cost variances that would make the top 5 cost drivers if included. e. For Format 5, the contractor shall provide the cumulative negative schedule drivers (ranked in descending order of criticality) that are on the critical path. Each report shall discuss technical and schedule status of these drivers. This discussion shall include current status (changes since last month), potential impacts to schedule, and the anticipated problem solution. In addition, any elements, which reported a significant (current drivers with equal to or greater than 10% and \$50K) positive or negative variance change, should also be reported and discussed. f. The Government reserves the right to modify, increase or decrease both the initial listing as well as the updates. In addition, the Government reserves the right to request additional information for those reporting level WBS elements (not included in the top 5 list) that have experienced significant shifts in status from previous months. <b>Block 11</b> Last day of the contractor's most current accounting period. <b>Block 12</b> Submit not later than 5th work day of the month after the close of the first accounting period following contract award <b>Block 13</b> Formal submittal of the CPR (Formats 1 – 5) will be submitted by the 20 <sup>th</sup> calendar of the particular month. <b>Block 14</b> Transmittal letter only required for PCO				IPO ADA PCO DCMA ACO SMC/CIP		1 0  1 1 1		1 1 0 0 0	
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## **NPOESS EMD/PRODUCTION STATEMENT OF OBJECTIVES**

### **1.0 Introduction**

1.1 Program Background. The National Polar-orbiting Operational Environmental Satellite System (NPOESS) program was designated by Presidential Decision Directive as the single satellite system replacing the Department of Commerce (DOC) Polar-orbiting Operational Environmental Satellite (POES) and the Department of Defense (DoD) Defense Meteorological Satellite Program (DMSP) satellites. To accomplish this mission, the two-satellite DMSP and the two-satellite POES constellations will be replaced by NPOESS satellites in three orbital planes.

1.2 NPOESS Mission Description. The NPOESS will remotely sense global and regional environmental data from space, transmit raw data to ground terminals, process it into Environmental Data Records (EDRs), and disseminate it to civil and military users. Environmental data will include radiometric observations of the atmosphere and cloud cover imagery, as well as other specialized environmental, climatic, terrestrial, oceanographic, and solar-geophysical data. For the purposes of TSPR responsibility in this acquisition, an Initial Operational Capability (IOC) will be declared when: (a) NPOESS satellites are operational in two different orbital planes, (b) the EDR attributes associated with those two orbits are satisfied, (c) all weather Centrals are receiving processed data, and (d) field terminal software is available.

### **2.0 Program Objectives**

2.1 To provide a single, national, polar remote-sensing capability to acquire, receive and disseminate global and regional environmental data,

2.2 To achieve National Performance Review (NPR) cost savings through the convergence of DoD and DOC environmental satellite programs,

2.3 To incorporate, where appropriate, technology transitioned from the National Aeronautics and Space Administration, Office of Earth Science Enterprise programs.

### **3.0 Engineering & Manufacturing Development (EMD)**

3.1 Phase Objective. The overall objectives of the NPOESS EMD effort are the completion of the final system design and the fabrication, test, deployment and support necessary to provide a capability for satellite environmental remote sensing sustainable for the program life-cycle.

#### **3.2 System Development, Integration, System Engineering and Ground System Deployment Objectives**

3.2.1 Complete NPOESS development to the Critical Design Review (CDR) level and obtain Government approval of all final external interface requirements.

3.2.2 Track the progress of the Government's Windsat, NAST and other research programs and infuse technology lessons learned from these experiments to improve NPOESS performance.

3.2.3 Incorporate the current Government initiated sensor developments into the EMD design. Procure (or develop), integrate, and test sufficient instruments to achieve system requirements.

3.2.4 Deliver to the NPP satellite contractor VIIRS and CrIS templates, models, flight-qualified instruments and associated ground support equipment; provide engineering support for development of ICDs, integration & test plans and on-orbit activation plans and procedures; support instrument and spacecraft integration and test activities as required to support the NPP launch schedule.

3.2.5 Deliver and support C3 and IDP segments in time to support the projected NPP launch schedule. Provide for a seamless installation and integration of the IDP and C3 Segments into their host facilities. Provide documentation, training, and personnel for the operation, maintenance, and upgrading of the C3 and IDP Segments through IOC.

3.2.6 Operate and support the NPP satellite, C3 and IDP segments. Deliver required RDR, SDR, TDR, and EDR performance.

3.2.7 Apply lessons learned from NPP to the development of NPOESS to efficiently and effectively transition appropriate NPP systems, subsystems, algorithms, and test facilities to NPOESS.

3.2.8 Complete delivery of C3 and IDP and Field Terminal segments to support the projected NPOESS launch schedule. Provide for a seamless installation and integration of the IDP and C3 Segments into their host facilities. Provide support to integration of the Field Terminal segment to agency field terminal program offices. Provide documentation, training, and personnel for the operation, maintenance, and upgrading of the IDP and C3 segments through IOC. Provide documentation, training, and personnel for the maintenance and upgrading of the Field Terminal Segment software through IOC. Complete delivery of C3, IDP, and Field Terminal segments to support all projected production satellites.

3.2.9 Deliver the OMPS instrument for a flight of opportunity. Support integration and test of the instrument on the spacecraft and launch/post launch activity.

3.2.10 Develop instrument and system calibration plans and participate in the on-going calibration efforts.

3.3 C1 & C2 Manufacturing and Planning for Production. Complete final sensor and satellite manufacturing, and planning for on-orbit checkout and calibration and validation activities required to achieve a launch call-up capability for NPOESS satellite(s) to support the launch schedule. The production strategy must accommodate the interchangeable configuration and launch of any satellite into any orbit to support backup and replacement requirements.

3.4 System Performance Verification. Implement and support a contractor and Government combined test and evaluation program (i.e. Combined Test Force (CTF)) encompassing both developmental and operational tests following the outlines in the Test and Evaluation Master Plan (TEMP). Minimize the cost and time for testing while assuring an acceptable level of performance risk. Wherever practical, integrated system tests of ground equipment and computer software installed in an operational system are preferred. Ideally, these tests will be conducted at target sites with operational personnel, enabling early combined Operational Test & Evaluation opportunities.

3.4.1 Validation and Verification

3.4.1.1 Demonstrate that all systems are properly integrated and functional (including satellite commanding and MMC functions). Demonstrate that mission data can be received, processed to specification, and distributed to NPOESS users. Demonstrate that error handling software is sufficiently robust to maintain performance of MMC and mission data processing functions through off-nominal and degraded conditions.

3.4.1.2 Validate by analysis, modeling, and/or simulation that EDR requirements are met under a broad range of conditions that are representative of those occurring in nature. All relevant sources of error, including those associated with the scene radiance, instrument, spacecraft, data transmission, and algorithms, shall be taken into account.

3.5 Initial Deployment. Support NPP mission system operational tests in preparation for mission readiness reviews and NPP Launch. Launch, checkout, calibrate, validate, operate and support sufficient NPOESS satellites to achieve IOC. Launch services will be provided by the Government, using contractor support for both NPP and NPOESS satellites.

3.6 Interim Support. Establish an integrated system life-cycle supportability concept/design, consistent with system readiness/availability/dependability and LCC goals. Develop and define an optimized support infrastructure for Test & Evaluation (T&E) activities, production and deployment. Define Integrated Logistics Support (ILS) T&E requirements, including pre-operational support requirements. Deliver, install, activate, and deploy the total system support infrastructure, including site activation necessary to sustain initial operations – i.e., Interim Contractor Support (ICS) through IOC. The ICS architecture shall be flexible and support a transition of ILS to a Government agency or another contractor after IOC. Provide technical and program support needed to sustain the operational system at the required performance and cost objectives.

#### 4.0 Production

4.1 Phase Objective. The overall objectives of the NPOESS Production effort are the completion of the fabrication, test, deployment, storage, and launch support necessary to provide a capability for satellite environmental remote sensing for 10 years past first capability to launch.

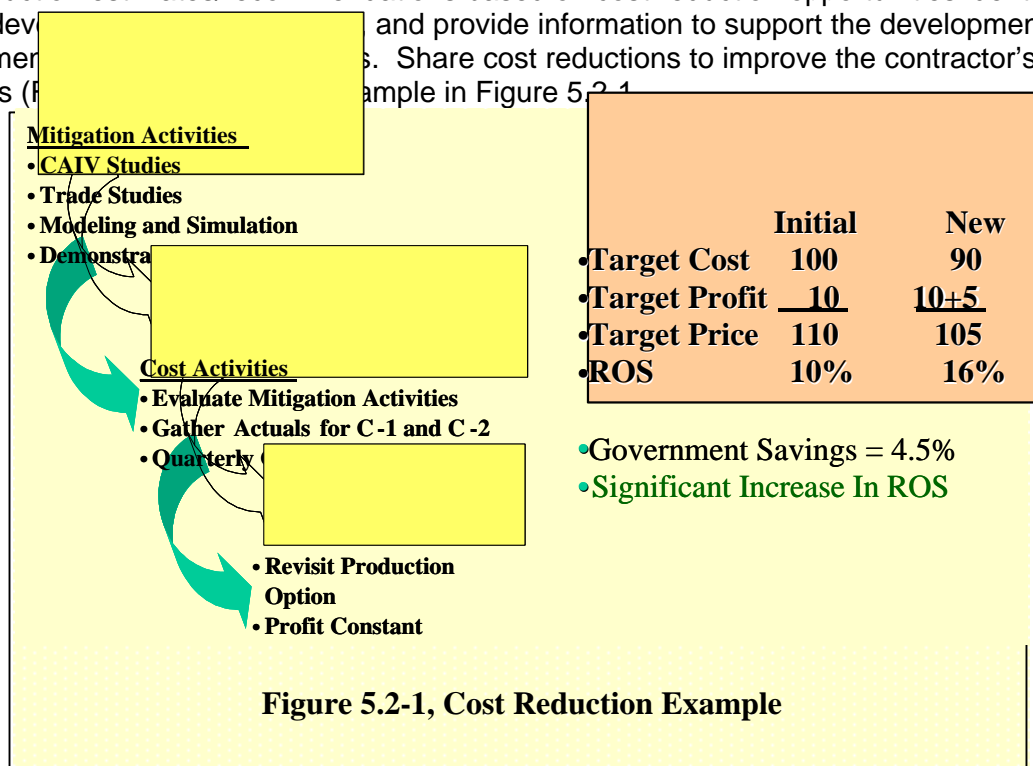
4.2 Satellite Production and Deployment. Complete all sensor, spacecraft bus, and satellite production, and the on-orbit checkout, calibration, and validation activities required to maintain the required operational availability throughout the NPOESS mission life. The production strategy must accommodate the interchangeable configuration and launch of any satellite into any orbit to support backup and replacement requirements.

4.3 Product Improvement. Infuse technology developments into the system design, throughout the NPOESS life cycle to expand system utility through instrument modifications and further exploitation of collected environmental data; e.g., continuous EDR performance improvement.

#### 5.0 Cost Reduction Initiatives

5.1 Objective. Corporate commitment shall be made to achieve the objectives described above and provide a foundation for successful long-term partnership (i.e. life of program) based on tangible guarantees of performance (milestone accomplishment and mission integrity), commitment to resource staffing, and innovative corporate business initiatives targeted at accelerating future architecture migration and NPOESS objectives.

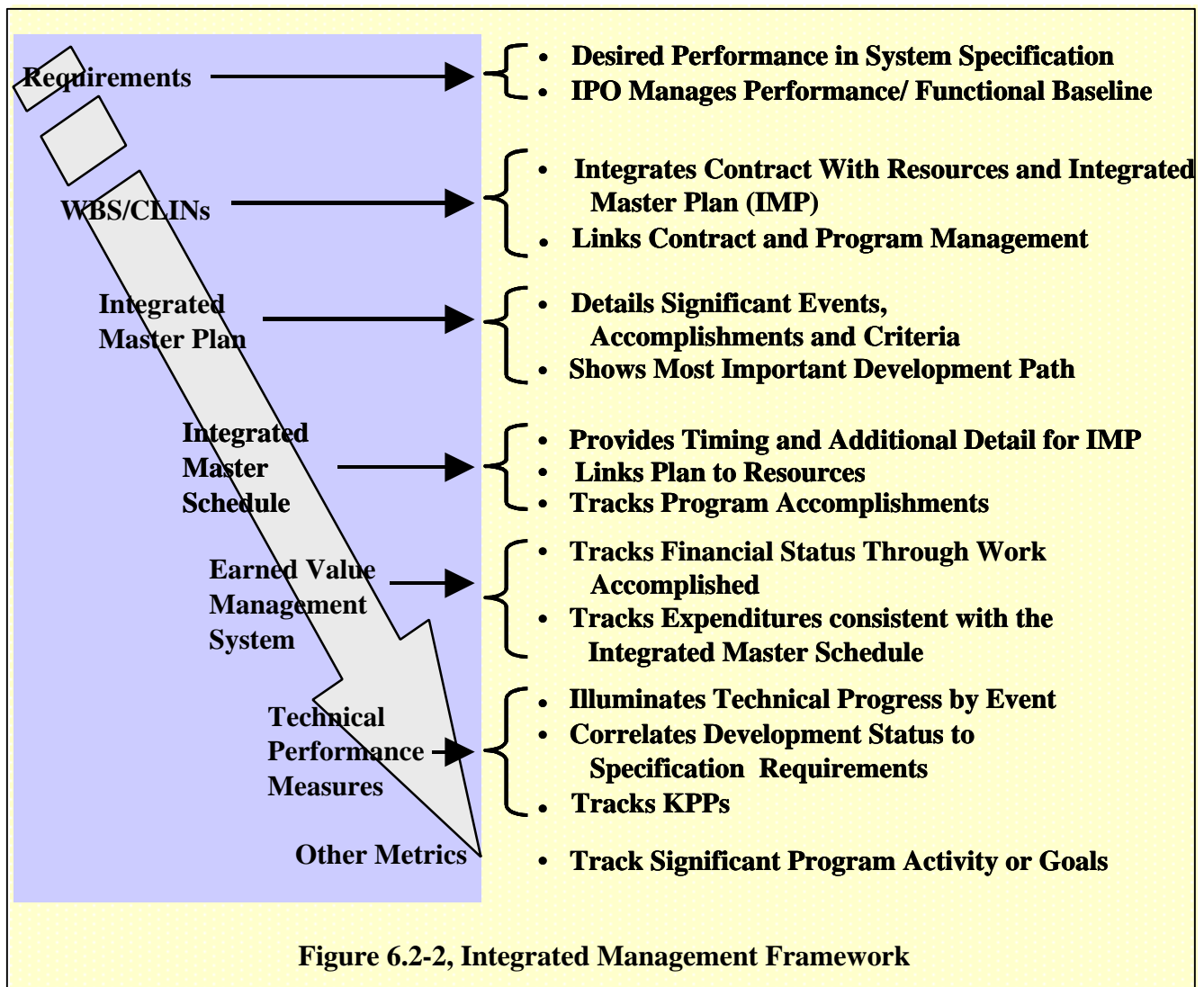
5.2 Life Cycle Cost Reduction Process. Conduct cost analyses and trades assuring a continuing cost effective implementation of NPOESS, use efficient long-lead procurement and sparing philosophies, maintain an efficient skill mix as the program matures, develop credible cost reduction estimates/recommendations based on cost-reduction opportunities identified during development and provide information to support the development of government proposals. Share cost reductions to improve the contractor's Return on Sales (ROS). Example in Figure 5.2-1.



## 6.0 Management and Control

6.1 Objective. Provide flexible and innovative management of program cost, schedule, performance, risks, contracts and subcontracts, other agencies and data required to deliver and sustain an effective and affordable system.

6.2 Management and Control Process. Manage the EMD/Production program via the Integrated Management Framework as shown in Figure 6.2-2. The Government will conform to the contractor's desired organizational structure and fully expects a matrix management approach to personnel assignment.



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# AWARD FEE and MISSION SUCCESS FEE PLAN

## Attachment X to Contract F04701-02-C-0500

<u>Title</u>	<u>Date</u>	<u>Pages</u>
Award and Mission Success Fee Plan, Basic Provisions	xx xxx xxxx	X
Annex 1-FDO and AFRB Members	xx xxx xxxx	1
Annex 2-Allocations and Earnings for the Development Effort	xx xxx xxxx	1
Annex 3-Allocations and Earnings for the Production Effort	xx xxx xxxx	1
Annex 4-Mission Success Fee Events and Amounts	xx xxx xxxx	1
Annex 5-Award Fee Evaluation Criteria	xx xxx xxxx	1

## AWARD AND MISSION SUCCESS FEE PLAN BASIC PROVISIONS

### 1. INTRODUCTION

This plan is the basis for the Government's Award Fee and Mission Success Fee evaluation of the contractor's performance under contract F04701-02-C-0500 for the Engineering and Manufacturing Development (EMD) and Production phases of the National Polar-orbiting Operational Environmental Satellite System (NPOESS).

This contract includes two types of award fee. The first is simply called "Award Fee". The second is called "Mission Success Fee". Both are award fee constructions and both are covered by this plan. The first (Award Fee) incentivizes the contractor's management approaches, technical excellence, and cost control efforts on an on-going, period-by-period basis. The second (Mission Success Fee) incentivizes the contractor's realization of certain specific achievements that are critical to the success of the program.

Both Award Fee and Mission Success Fee are further divided between the development and production efforts of this contract. The development effort is the design, development and deployment of the system interim contract support and the production of the first two satellites. The production effort is for replenishment satellites for the program life.

The Award Fee and Mission Success Fee earned under this plan are earned at risk as described in contract clause H-521X (On-Orbit Performance Incentive).

### 2. RESPONSIBILITIES

The Fee Determining Official (FDO) and Award Fee Review Board (AFRB) members are listed in Annex 1.

The FDO is the Government official

designated to determine the amount of Award Fee and Mission Success Fee earned and payable to the Contractor. The FDO also makes rollover decisions.

The AFRB performs analysis and makes recommendations to the FDO for Award Fee and Mission Success Fee promptly after the end of each Award Fee period and the scheduled end of each Mission Success Fee event.

The AFRB Chair may authorize interim Award Fee and Mission Success Fee payments.

The contractor's program manager may present a self-assessment to the AFRB following the completion of each Award Fee period or Mission Success Fee event. He or she may participate in the discussions of the AFRB when the AFRB meets for the purpose of making a recommendation to the FDO, and may provide a self-assessment summary that will accompany the AFRB's recommendation to the FDO. The contractor may reclama the FDO's award fee determination and request consideration of the reclama.

### 3. FEE INTEGRITY

Determination of the earned Award Fee and Mission Success fee is inherently subjective. However, the process is clear enough to allow the contractor to understand how the award amount is based on performance. The contractor's assessment of its own performance, assessments produced by Government performance monitors, the knowledge of the AFRB and FDO, and the criteria specified in this plan shall form the basis for the recommendations of the AFRB and determinations by the Fee Determining Official. This determination and the

methodology for determining the award fee are unilateral decisions made solely at the discretion of the Government.

The contractor acknowledges the subjectivity of the performance evaluation and fee determination processes, and will accept FDO fee determinations as final.

#### **4. AWARD FEE EVALUATION AREAS**

For the Award Fee, the Government will assess the contractor's performance and progress under three areas: Management, Technical, and Cost. The criteria for these areas are listed in Annex 5. Additional areas may be added as the program progresses. Additional areas will be added by mutual agreement.

#### **5. SCORING**

Award Fee and Mission Success Fee determinations are subjective and are not firmly tied to a numerical system. However, a scoring system as shown in Figure 1 will be used by the AFRB in making its recommendation to the FDO at the end of each Award Fee period or upon completion of each Mission Success Fee event.

Figure 1

Award & Mission Success Fee Scoring	
Excellent	90-100%
Fully Satisfactory	75-89%
Satisfactory	60-74%
Marginal	50-59%
Unsatisfactory	Below 49%

The AFRB will subjectively assign a percentage scoring, based on the criteria definition, to each of the Award Fee areas. For the Mission Success Fee recommendation, the AFRB will consider the event as a whole as it makes its subjective scoring. This will include an assessment of how much of the mission success objectives were met.

#### **6. AWARD FEE DETERMINATION**

After reviewing the contractor's self-assessment and the recommendations of the AFRB, the FDO will make an Award Fee determination. This plan will form the basis for a FDO determination, but the FDO may make an independent judgment of the contractor's performance and progress. The AFRB recommendation is just that—a recommendation. Where the FDO's opinion differs from that of the AFRB, he or she will relate that opinion to the contractor in the decision letter. It will also include those areas that were major determination factors.

#### **7. INTERIM (or PROVISIONAL) AWARD FEE PAYMENTS**

At the mid-point of an Award Fee period, the AFRB Chair may authorize an interim payment of up to 80% of the Award Fee available for that period, in accordance with the clause at AFMCFARS 5352.216-xxxx. In the event that the contractor does not meet the criteria, the AFRBC will inform the contractor that it has not met the criteria and provide fee instructions.

#### **8. INTERIM (or PROVISIONAL) MISSION SUCCESS FEE PAYMENTS**

For any Mission Success Fee event, the FDO may authorize one or more interim payments of Mission Success fee. The contractor may submit a plan for achieving any Mission Success event for the FDO's consideration—this plan should briefly describe incremental achievements needed to make the Mission Success event a reality and may start as early as four years before the scheduled Mission Success event. The AFRB Chair may authorize interim Mission Success Fee payments at the one-, two-, and three-year points, so long as the cumulative value of these interim payments do not exceed the percentages shown in Figure 2. For all purposes, interim Mission Success Fee payments are like interim Award Fee payments and are subject to Government recoupment if the final FDO

fee determination for the Mission Success event is less than the amount authorized as interim fee.

Figure 2

Mission Success Fee Interim Payments	
Three Years Before	20%
Two Years Before	40%
One Year Before	60%

## 9. CONTRACT TERMINATION

If the contract is terminated for the convenience of the Government, the FDO will determine the fee earned based on the degree of work completed. The contractor shall provide its assessment of the fee earned to the FDO for his or her consideration.

## 10. CHANGES TO THE FEE PLAN

Before the beginning of an Award Fee period, the Government may unilaterally change the fee evaluation criteria, the distribution of the remaining fee among the remaining periods, the allocation of fee across the areas, and other matters covered in this plan. The contracting officer shall notify the Contractor in writing of changes to the plan at least fifteen (15) calendar days before the start of the affected period.

Up to twelve months before scheduled completion of a Mission Success Fee event, the Government may unilaterally change the Mission Success Fee events, the distribution of the remaining fee among the remaining events, and other matters covered in this plan. The contracting officer shall notify the Contractor in writing of changes to the plan at least fifteen (15) calendar days before the start of the affected period.

In the event it becomes necessary to delete or change a Mission Success Fee event within twelve months of the scheduled completion of the event because of program changes completely outside the contractor's control, the FDO may reapportion the fee

available for that event to other events (including newly-created Mission Success Fee events). For example, a NPP launch delay because of launch pad scheduling difficulties arising within twelve months of the scheduled launch will serve as a basis for reapportioning the Mission Success Fee available for a NPP launch among other Mission Success Fee events.

## 11. ROLLOVER OF UNEARNED AWARD FEE

The FDO, at his or her discretion, may allow rollover of unearned Award Fee into the following period. This rollover will be reflected in Annex 2 of this plan. For administrative purposes, the rollover is recorded in a separate column in Annex 2 and is not added to the "available" column—but the rollover amount is, in fact, available for the period in which it is placed.

When the FDO authorizes rollover, he or she may specify the conditions, in general terms, the contractor must achieve to earn the rollover amount. The contractor shall submit a letter agreeing with the apportionment or recommending a change. The FDO will review the recommendations and approve or reject the recommendation. The FDO will make his or her determination in ten (10) working days.

## 12. ROLLOVER OF UNEARNED MISSION SUCCESS FEE

The FDO, at his or her discretion, may allow rollover of unearned Mission Success Fee into the following events or into new events. This rollover will be reflected in Annex 4 of this plan. For administrative purposes, the rollover is recorded in a separate column in Annex 4 and is not added to the "available" column—but the rollover amount is, in fact, available for the period in which it is placed.

When the FDO authorizes rollover, he or she may specify the conditions, in general terms, the contractor must achieve to earn the rollover amount. The contractor shall in

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submit a letter agreeing with the apportionment or recommending a change. The FDO will review the recommendations and approve or reject the recommendations. The FDO will make a determination in ten (10) working days.

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**ANNEX 1  
to the Award Fee Plan**

**FDO and AFRB Members**

**Fee Determining Official (FDO):**

NPOESS Program Director

*and in his or her absence—*

NPOESS Deputy System Program Director

**Award Fee Review Board (AFRB):**

Chair—NPOESS Deputy System Program Director

*and in his or her absence—*

NPOESS Associate Director for Acquisition

**Members—**

NPOESS Associate Director for Acquisition

NPOESS Associate Director for Operations

NPOESS Associate Director for Technology Transition

NPOESS Deputy Associate Director for Acquisition

IPO Chief Systems Engineer

IPO Director of Program Control

IPO Contracting Officer

Program Counsel

NPP Project Manager (NASA Goddard Space Flight Center)

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**ANNEX 2**  
**to the Award Fee Plan**

Award Fee Allocations and Earnings for the Development Effort (CLINs \_\_\_\_\_)

Period	Dates	(a) Total			(b) Management		(c) Technical		(d) Cost	
		(1) Available	(2) Earned	(3) Roll-Over	(1) Available	(2) Earned	(1) Available	(2) Earned	(1) Available	(2) Earned
1	AUG2002- JAN2003	\$	\$		\$	\$	\$	\$	\$	\$
2	FEB2003- JUL2003	\$	\$	\$	\$	\$	\$	\$	\$	\$
3	AUG2003- JAN2004	\$	\$	\$	\$	\$	\$	\$	\$	\$
4	FEB2004- JUL2004	\$	\$	\$	\$	\$	\$	\$	\$	\$
5	AUG2004- JAN2005	\$	\$	\$	\$	\$	\$	\$	\$	\$
6	FEB2005- AUG2005	\$	\$	\$	\$	\$	\$	\$	\$	\$
7a	SEP2005- AUG2006	\$	\$	\$	\$	\$	\$	\$	\$	\$
8a	SEP2006- AUG2007	\$	\$	\$	\$	\$	\$	\$	\$	\$
9a	SEP2007- AUG2008	\$	\$	\$	\$	\$	\$	\$	\$	\$
10a	SEP2008- AUG2009	\$	\$	\$	\$	\$	\$	\$	\$	\$
11a	SEP2009- AUG2010									
12a	SEP2010- AUG2011									
13a	SEP2011- AUG2012	\$	\$	\$	\$	\$	\$	\$	\$	\$
14a	SEP2012- AUG2013	\$	\$	\$	\$	\$	\$	\$	\$	\$
TOTALS:		\$	\$		\$	\$	\$	\$	\$	\$

**NOTES—**

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**ANNEX 3**  
**to the Award Fee Plan**

Award Fee Allocations and Earnings for the Production Effort (CLINs \_\_\_\_\_)

Period	Dates	(a) Total			(b) Management		(c) Technical		(d) Cost	
		(1) Available	(2) Earned	(3) Roll-Over	(1) Available	(2) Earned	(1) Available	(2) Earned	(1) Available	(2) Earned
7b	SEP2005- AUG2006	\$	\$		\$	\$	\$	\$	\$	\$
8b	SEP2006- AUG2007	\$	\$	\$	\$	\$	\$	\$	\$	\$
9b	SEP2007- AUG2008	\$	\$	\$	\$	\$	\$	\$	\$	\$
10b	SEP2008- AUG2009	\$	\$	\$	\$	\$	\$	\$	\$	\$
11b	SEP2009- AUG2010	\$	\$	\$	\$	\$	\$	\$	\$	\$
12b	SEP2010- AUG2011	\$	\$	\$	\$	\$	\$	\$	\$	\$
13	SEP2011- AUG2012	\$	\$	\$	\$	\$	\$	\$	\$	\$
14	SEP2012- AUG2013	\$	\$	\$	\$	\$	\$	\$	\$	\$
15	SEP2013- AUG2014	\$	\$	\$	\$	\$	\$	\$	\$	\$
16	SEP2014- AUG2015	\$	\$	\$	\$	\$	\$	\$	\$	\$
TOTALS:		\$	\$		\$	\$	\$	\$	\$	\$

**NOTES—**

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**ANNEX 4  
to the Award Fee Plan**

**Mission Success Fee Events and Amounts**

Event No.	MISSION SUCCESS EVENT	Available	Earned	Roll-Over
M-1	Critical Design Review Description: Completion of the segment and system CDR with the balance at the closeout of the open CDR action items	\$	\$	
M-2	NPP Sensors Complete and Delivered Description: Successful on-time delivery of the CrIS and on-time delivery of the VIIRS	\$	\$	\$
M-3	NPP Ground Readiness Description: Operational readiness of C3 Segment at MMC; Operational readiness of IDPS at NESDIS; Operational readiness of IDPS at AFWA	\$	\$	\$
M-4	Processing of NPP Data Description: Successful processing and delivery of NPP; calibration/validation of EDR quality	\$	\$	\$
M-5	NPOESS Ground Readiness Description: Operational readiness of C3 Segment at primary and back-up MMC; Operational readiness of IDPS at FNMOC; Operational readiness of IDPS at NAVO	\$	\$	\$
M-6	Processing C1 Data Description: Processing and delivery of C1 Data; Calibration/validation of EDR quality	\$	\$	\$
M-7	Interim Operational Capability Description: Declaration of IOC..	\$	\$	\$
M-8	Satellite C3 On-orbit test	\$	\$	\$
M-9	Satellite C4 On Orbit Test	\$	\$	\$
M-10	Satellite C5 On Orbit Test	\$	\$	\$
M-11	Satellite C6 On Orbit Test	\$	\$	\$
TOTALS:		\$	\$	

**NOTES—**

ANNEX 5  
to the Award Fee Plan

Award Fee Evaluation Criteria

**1. MANAGEMENT (35%)**

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Excellent –

First Period:

- Completion of the Post Award Conference to include the closeout of all action items
- Completion of the requirements allocation down to tier four of the WBS
- All elements of the EVMS on schedule and cost
- Completion of the staffing plan
- Establishment of the program IPT structure
- Systems engineering and management process demonstrated

Second Period

- Design complete for tier four elements
- Tier five and six allocations complete
- All elements of the EVMS on schedule and cost
- Long lead for the satellite complete and ready for contract release
- VIIRS and CrIS on schedule for delivery to NPP
- C3 and IDPS demonstrations to meet NPP need dates are complete
- Staffing plan on target

Fully Satisfactory—

First Period:

- IBR completed and 80% of the action items closed
- Requirements allocation 80% complete
- 90% of the EVMS elements on cost and schedule targets
- 100% of the tier two structure established and 90% of the tier three IPTs and 80% of tier four IPTs Staffing levels 90% complete
- Systems engineering or management process 80% demonstrated

Second Period

- Design 90% complete for tier four elements
- Tier five and six allocations 90% complete
- 90% elements of the EVMS on schedule and cost
- 90% of the long lead for the satellite complete and ready for contract release
- VIIRS and CrIS on schedule for delivery to NPP
- C3 and IDPS demonstrations to meet NPP need dates are complete
- 90% staffing levels are met

Satisfactory—

First Period

- Post Award Conference completed and less than 70% of the action items closed
- Requirements allocation 70% complete
- 80% of the EVMS elements on cost and schedule targets
- 100% of tier two structure established and 80% of tier three IPTs, and 70% of tier four IPTs

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- Staffing levels 80% complete
- Systems engineering and management processes 70% demonstrated

### Second Period

- Design 80% complete for tier three elements
- Tier five and six allocations 80% complete
- 80% elements of the EVMS on schedule and cost
- 80% of the long lead for the satellite complete and ready for contract release
- VIIRS and CrIS on schedule for delivery to NPP
- C3 and IDPS demonstrations to meet NPP need dates are complete
- 90% staffing levels are met

### Marginal—

#### First Period

- IDR completed and less than 60% of the action items closed
- Requirements allocation 60% complete
- 70% of the EVMS elements on cost and schedule targets
- 100% of tier two structure established and 80% of tier three IPTs, and 60% of tier four IPTs
- Staffing levels 70% complete
- Systems engineering and management processes 60% demonstrated

### Second Period

- Design 70% complete for tier three elements
- Tier five and six allocations 70% complete
- 70% elements of the EVMS on schedule and cost
- 70% of the long lead for the satellite complete and ready for contract release
- VIIRS and CrIS on schedule for delivery to NPP
- 80% of the C3 and IDPS demonstrations to meet NPP need dates are complete
- 90% staffing levels are met

### Unsatisfactory—

#### First Period

- Anything less than Marginal in any category

### Second Period

Any thing less than Marginal in any category

## 2. **TECHNICAL (35%)**

### Fully Satisfactory—

### Satisfactory—

### Marginal—

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Unsatisfactory—

**3. COST (30%)**

Fully Satisfactory—

Satisfactory—

Marginal—

Unsatisfactory—

## FEE RISK REDUCTION EXAMPLE FOR THE EMD PHASE

This illustrates the fee risk covenant in H0521.

Sample figures used in this example—

\$1,000,000,000	Value of EMD CLINs
\$130,000,000	Award Fee Pool for EMD CLINs
\$50,000,000	Mission Success Fee Pool for EMD CLINs

### INITIAL FEE RISK REMOVAL PERIOD

Sample figures—

\$50,000,000	Award Fee Earned through December 2006
\$25,000,000	Mission Success Fee Earned through December 2006

**STEP ONE**—Determine the Fee Risk Removal Pool for the Initial Period. This is the sum of the Award Fee and Mission Success Fee earned through the start of the period—in this example, it is \$75,000,000.

**STEP TWO**—Determine the amount available for fee risk removal at each 6-month decision. This is one-tenth of the Fee Risk Removal Pool—in this example, it is \$7,500,000.

**STEP THREE**—The FDO performs an assessment at each six-month decision, and the fee risk removed is the assessment factored against the amount available for risk removal at that decision. In this example, a 100% success assessment will retire risk on \$7,500,000; a 90% success assessment will retire risk on \$6,750,000; an 80% success assessment will retire risk on \$6,000,000, and so forth.

A illustrative initial period is provided in Table 1. This shows an example where the FDO made 100% success assessments in Jan 2007, Jan 2009, and Jul 2009, with 50% success assessments in every other period.

TABLE 1—INITIAL PERIOD EXAMPLE						
	Jan 2007	Jul 2007	Jan 2008	Jul 2008	Jan 2009	Jul 2009
Available:	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000	\$7,500,000
FDO Assessment:	100%	50%	50%	50%	100%	100%
Fee Risk Removed:	\$7,500,000	\$3,750,000	\$3,750,000	\$3,750,000	\$7,500,000	\$7,500,000
Cumulative Removal:	\$7,500,000	\$11,250,000	\$15,000,000	\$18,750,000	\$26,250,000	\$33,750,000
NOTE: It is not possible to remove the risk on the entire risk removal pool during the initial period—the portion where the risk is not yet removed rolls over into and becomes part of the second period.						

### SECOND FEE RISK REMOVAL PERIOD

Sample figures—

\$72,500,000	Award Fee Earned through December 2009 (includes the \$50,000,000 used in the initial period)
\$37,500,000	Mission Success Fee Earned through December 2009 (includes the \$25,000,000 used in the initial period)

**STEP ONE**—Determine the Fee Risk Removal Pool for the Second Period. This is the sum of the Award Fee and Mission Success Fee earned through the start of the period (including the fee earned during the initial period), less the fee risk removed during the initial period—in this example, the earned fee is

\$110,000,000 and the fee risk removed during the initial period is \$33,750,000, so the fee risk removal pool for the second period is \$76,250,000.

**STEP TWO**—Determine the amount available for fee risk removal at each 6-month decision. This is one-tenth of the Fee Risk Removal Pool—in this example, it is \$7,625,000.

**STEP THREE**—The FDO performs an assessment at each six-month decision, and the fee risk removed is the assessment factored against the amount available for risk removal at that decision. In this example, a 100% success assessment will retire risk on \$7,625,000; a 90% success assessment will retire risk on \$6,862,500; an 80% success assessment will retire risk on \$6,100,000, and so forth.

A illustrative initial period is provided in Table 2. This shows an example where the FDO made 100% success assessments in Jan 2007, Jan 2009, and Jul 2009, with 50% success assessments in every other period.

<b>TABLE 2—SECOND PERIOD EXAMPLE</b>					
	Jan 2010	Jul 2010	Jan 2011	Jul 2011	Jan 2012
Available:	\$7,625,000	\$7,625,000	\$7,625,000	\$7,625,000	\$7,625,000
FDO Assessment:	100%	80%	80%	80%	100%
Fee Risk Removed:	\$7,625,000	\$6,100,000	\$6,100,000	\$6,100,000	\$7,625,000
Cumulative Removal:	\$7,625,000	\$13,725,000	\$19,825,000	\$25,925,000	\$33,550,000
NOTE: This example presumes IOC declaration in Sep 2011, but it could occur earlier or later—in such a case, this period could have more or fewer decisions than illustrated here and the last decision for this period is the decision immediately following IOC declaration—the fee where the risk is not yet removed will roll into the final period.					

## **FINAL FEE RISK REMOVAL PERIOD**

Sample figures—

\$100,000,000	Award Fee Earned through December 2009 (includes the \$72,500,000 used in the initial and second periods)
\$50,000,000	Mission Success Fee Earned through December 2009 (includes the \$37,500,000 used in the initial and second periods)

**STEP ONE**—Determine the Fee Risk Removal Pool for the Second Period. This is the sum of the Award Fee and Mission Success Fee earned through the start of the period (including the fee earned during the initial and second periods), less the fee risk removed during the initial and second periods—in this example, the earned fee is \$150,000,000 and the fee risk removed during the initial and second periods is \$67,300,000 (\$33,750,000 and \$33,550,000, respectively), so the fee risk removal pool for the second period is \$82,700,000.

**STEP TWO**—Determine the amount available for fee risk removal at each 6-month decision. This is one-tenth of the Fee Risk Removal Pool—in this example, it is \$8,270,000.

**STEP THREE**—The FDO performs an assessment at each six-month decision, and the fee risk removed is the assessment factored against the amount available for risk removal at that decision. In this example, a 100% success assessment will retire risk on \$8,270,000; a 90% success assessment will retire risk on \$7,443,000; an 80% success assessment will retire risk on \$6,616,000, and so forth.

A table for the final period is not provided, but the mechanics are identical to those illustrated in the initial and second period examples above. The period will continue with six-month decisions until all the fee risk is retired.

**FIGURE 3**

